MEMOIRS OF THE LIFE OF NAPOLEONE BONAPARTE,

FIRST CONSUL OF FRANCE.

With his Portrait, elegantly engraved by Hopwood.

NAPOLEONE BONAPARTE was born on the 15th of Auguſt 1769, at Ajaccio in Corſica.

The Genoeſe about that time reſigned finally to France a dominion which had long been to themſelves even worſe than unprofitable. The inhabitants of Corſica became French ſubjects; and their youth were encouraged to ſeek preferment in the military ſervice of their new ſovereign.

Hence, Bonaparte was, at an early age, ſent for education to a military ſchool at Brienne, in Champagne. Remarkable elevation of ſentiment, a humour unſocial, ſolitary, and deciſively overbearing; a confidence in himſelf, rather tacit and contemptuous than loudly boaſtful; cool intrepidity; an exemplary application to his exerciſes and ſtudies, and a tenor of moral conduct above reproach; are now ſaid by his admirers to have diſtinguiſhed him in that preparatory period of his life as a ſoldier. A father Patrault, whoſe cares he is ſaid yet to remember with gratitude, was his teacher in mathematics.

From Brienne, he was called to finiſh his ſtudies at the military ſchool in Paris. His progreſs at the former of theſe places had been more rapid than that of moſt of his young companions; and he was therefore removed to the higher ſchool in the capital ſomewhat before the uſual time.

He was in his nineteenth year, and a cadet in the artillery, when the national aſſembly entered upon the overthrow of the old government in 1788. His mind was at once inflamed to enthuſiaſm, by the common paſſion for liberty. But he is not known to have had any eminent ſhare among the earlier agitators in the revolution. Till 1793, he continued quietly to perfect himſelf in the ſtudy of tactics, and to do his duties as a ſoldier, without riſing higher than to the rank of a ſubaltern officer in a company of artillery.

At the ſiege of Toulon in 1793, Barras was preſent as a ſuperintending repreſentative of the people. In the attack of fort Pharo, while the men under Bonaparte's command fell by a ſlaughter ſo rapid and terrible, that they could ſcarce continue to ſerve the pieces of artillery before them, Bonaparte himſelf was obſerved to do his duty in the thickeſt of the danger, with an activity and a cool intrepidity, which Barras beheld with aſtoniſhment. The young hero was, immediately after this, promoted to the rank of brigadier-general.

From Toulon, he went to ſerve in his new rank at Nice. He was there arreſted, and for a very ſhort time detained in confinement as a terroriſt. But the examination of his papers proved his innocence of the charge; and he was inſtantly reſtored to his rank and liberty. He was ſtill indefatigable in his profeſſional ſtudies. One of his friends going on a ſudden emergency to wake him before day, found him already up and buſy at ſtudy, with plans, maps, and books around him. His friend ſuppoſed that he had not yet been in bed. But he declared, that an hour or two of ſleep was enough for him; and that after enjoying that night ſo much in bed, he had riſen, dreſſed himſelf, and begun his application for the next day. An attempt was made to remove him from the artillery, to ſerve in the infantry. Againſt this he remonſtrated, as an act of injuſtice, and went to Paris to ſeek redreſs. He remained there till the 4th of October 1794, without being able to procure ſatisfaction to his wiſhes.

Having been promoted by Barras, he ſtill cultivated the acquaintance of his patron. He was admitted, as it ſhould ſeem, in conſequence of this connexion, to an early knowledge of the deſigns of thoſe who conſpired the overthrow of Robeſpierre. On the fatal 4th of October, he acted as ſecond under Barras, in the command of thoſe troops of the line which, in defence of the convention, oppoſed the militia of Paris. The ſucceſs of that day raiſed his friends to power; and Bonaparte, as a man in whom they thought that they might ſafely confide, was appointed to the chief command of the armed force of that capital. By the obliging intervention of Barras, he became the ſecond huſband of the widow of the count de Beauharnois. He was ſoon after promoted to the chief command of the French army in Italy.

The French army was then on the river of Genoa, nearly in the preſence of an Auſtrian force of ſuperior ſtrength. On the 11th of April 1795, they were attacked by general Beaulieu, of purpoſe to diſlodge them from the Genoeſe territory. The battle of Montenotte was fought; and the victory remained with the French under Bonaparte. He led them down upon the Italian plains; and by the victory of Milleſimo they procured ſupplies, the moſt ſeaſonable, of both ammunition and proviſions. After ſeveral ſubſequent engagements of ſmaller importance, in which they were generally ſucceſsful, they gained on the 22d of April the victory of Mondovi, which made them maſters of the fate of the king of Sardinia. The fortreſſes of Tortona and Coni were ſurendered, as pledges of that king's ſincerity in a truce with the invaders, to which he was hence compelled to agree. By a ſtratagem of Bonaparte, the French army eluded the oppoſition, with which Beaulieu at the head of the Auſtrians had prepared to reſiſt their paſſage over the Po; drove the enemy from the village of Fombio on the further ſide; and impetuouſly purſued them to the banks of the Adda. The duke of Parma now ſigned an armiſtice with the French, and withdrew his troops from co-operation with the Auſtrians. A battle fought under the walls of Lodi, obliged the Auſtrians to abandon that place. Beaulieu, in vain, ſtrove to defend the paſſage over the Adda. The French with terrible intrepidity paſſed the bridge in the face of his artillery. The Auſtrians again fled in terror: and Pavia, Pizzigthone, and Cremona, were quickly in the hands of their purſuers. All Lombardy, except the caſtle of Milan, was thus ſubdued by the rapid career of the French under Bonaparte. The paſſage of the Mincio was next atchieved in circumſtances of peculiar difficulty. Peſchiera had been evacuated by the Auſtrians before the French could come up. Verona was ſoon after taken; and Mantua inveſted; a detachment was then ſent by Bonaparte, to take poſſeſſion of Leghorn. And the pope was compelled to ſign a treaty of peace, by which he reſigned to France the two legations of Bologna and Ferrara, with the town and citadel of Ancona. The caſtle of Milan was in the mean time ſurrendered under a capitulation. Wurmſer, however, was ſent with a new army from Germany; and ſucceeding Beaulieu in the chief command of the Auſtrian forces, quickly turned for a time the fortune of the campaign. Salo, Breſcia, Corona, Rivoli, and Verona, were abandoned by the French; and they raiſed in precipitation the ſiege of Mantua; but Breſcia was ſoon recovered by the French. At Caſtiglione, Lonado, and Gavardo, Bonaparte, by ſtratagem and intrepid energy of movements, deſtroyed or made priſoners many thouſands of the beſt troops in Wurmſer's army. The Auſtrians again took refuge among the mountains of the Tyrol. In the battle of Roveredo, Bonaparte's genius once more prevailed; and Wurmſer with the loſs of 7000 of his troops, who, beſide the ſlain, remain-

ed priſoners, twenty five pieces of cannon, fifty waggons, and ſeven ſtandards, was compelled to retire from the defence of the paſſes into the Tyroleſe. The city of Trent was ſoon after taken by the French. By the victory of Baſſano, they cut off the retreat of the Auſtrians over the Brenta; and Wurmſer, as a laſt effort, threw himſelf with the remains of this army into Mantua. A reinforcement of fifty thouſand men in the meanwhile advanced from Germany, under the command of generals Alvingy and Davidovick. Bonaparte, haſtening to anticipate their paſſage of the Adige, met them in battle at Arcola. The village and bridge of Arcola were maintained by a party of the Auſtrians with matchleſs obſtinacy of valour. That detachment was at laſt overpowered by the French in ſuperior numbers. A general engagement enſuing, the whole Auſtrian army was put to flight. In the battles of Rivoli and Anguiari, the French were again victorious. On the 3d of February 1796, Mantua was at laſt taken. Bonaparte, then with the ſame ſucceſs, advanced after the Auſtrians, through the Tyrol, Carinthia, and Carniola; and then from the defiles of Inſpruck renewed his march, in the deſign to extort a peace from the emperor, before the walls of Vienna. The progreſs of the French arms was irreſiſtible. Bonaparte had reached Leoben, within a hundred miles of the Auſtrian capital, when the emperor accepted in terror thoſe preliminaries of a treaty of peace, which the French commander choſe to dictate. They formed the baſis of the treaty, which was ſoon after concluded at Campo Formio. While the Auſtrian plenipotentiaries there heſitated in a particular conference, to agree to all his demands. 'Thus,' ſaid he, taking up a beautiful piece of china which ſtood before him, and dashing it in a thouſand pieces, '*thus will I reduce you to duſt.*' His demands were conceded, and the treaty was ſigned.

Bonaparte, after thus atchieving in his twenty-ſeventh year the conqueſt of Italy, a conqueſt in which we muſt not conceal, that he is ſaid to have been indebted, not leſs to the arts of Philip of Macedon, than to the heroiſm of Alexander—returned in triumph to Paris, whence he was ſoon after deputed to aſſiſt in the congreſs at Raſtadt. At Raſtadt, he aſſerted the honour and intereſts of the French republic, with the ſame authoritative ſuperiority with which he had dictated the conditions of the treaty of Campo Formio.

On his return out of Germany, the expedition to Egypt was projected. Thoſe who envied his military preeminence, and were at a loſs how to diſpoſe of the ſoldiers after the peace, ſeemed to rejoice in the propoſal of an enterprize, which if it ſhould not advance the glory and welfare of France, might perhaps rid it for ever of the preſence of citizens, whoſe further ſervices and rivalry they did not at all deſire. Others were pleaſed with the magnificence of a plan which, in a manner ſufficiently conſpicuous, aimed to ſubvert the Britiſh power in India, and to render France miſtreſs of the Mediterranean ſea, and ultimately of the whole eaſtern world. Bonaparte himſelf, with the enthuſiaſm of an Alexander, was willing to believe, that nothing in military enterprize would prove impoſſible to his own genius and fortune, or to the arms of thoſe unconquered troops of France, which were again to follow them as their leader. No military attempt could more expreſsly violate the faith of treaties and the law of nations. But revolutionary extravagance or neceſſity, had already taught the French to ſet theſe in other inſtances at nought: and the preſent was it ſeemed of all ſeaſons the fitteſt to be ſeized, in order to atchieve another uſeful, though poſſibly unjuſt conqueſt. There was difficulty to procure the ſupplies requiſite for the equipment of the expedition: but Bonaparte, to excite the merchants to contribute money in loan,

boldly promiſed that its ſucceſs ſhould repay 500 per cent. for whatever ſums they might then advance.

On the 20th of May 1797, this expedition ſailed from Toulon, in a ſtrong ſquadron of one hundred and ninety-four veſſels, various in bulk, and all duely manned with ſeamen and marines. On board theſe veſſels were nineteen thouſand ſoldiers of land force, with about two thouſand workmen, beſide a number of artiſts, philoſophers, men of letters, and others. The preparations were not more for conqueſt than for permanent colonial ſettlement. On the 10th of June, this ſquadron was joined near Malta by a convoy from Civita Vecchia. On the 11th, a deſcent was made from the fleet on that iſland; and its capital, which alone reſiſted the French attack, was that very evening completely inveſted. In a ſally which they made during the night, the defenders loſt the ſtandard of the order of Malta. When on the morning of the 12th, they ſaw Bonaparte diſembark his artillery, they then ceaſed to think of further reſiſtance, and ſent to negociate a capitulation. On the 13th, all was ſurrendered into the poſſeſſion of the invaders. What if Malta were gained more by corruption than valour? This only evinces Bonaparte to have added to the courage and lofty ſelf-confidence of a military hero, the ſkill, the dexterity, and the bold morality of a conſummate politician.

On the 20th of June, juſt three days before Nelſon's arrival at Malta, Bonaparte with his troops again embarking, ſailed for Egypt. On the 2d of July, the whole fleet entered the harbour of Alexandria. With an army then conſiſting of full thirty thouſand men, Bonaparte went that ſame evening on ſhore. The city of Alexandria, with its fortreſſes, were next day aſſaulted and taken. Nelſon had been, before the arrival of the French fleet and army, in this harbour; had ſailed in impatient ſearch of them, and returned only in time to deſtroy the fleet, after the army had eſcaped on ſhore.

A part of the Arabs were quickly won to Bonaparte's ſide: he endeavoured to conciliate the good wiſhes of the pacha; as he marched from Alexandria toward Cairo, a detachment of his troops defeated a body of ſix thouſand mamelucs, by whom they were attacked at Rahmanieh. At Cherbreſſe, the mamelucs under Mourat Bey, again approached to aſſail the French on their march, but retired, without coming to a cloſe engagement. The French on the 21ſt of July, arrived within ſight of the Pyramids, and at the diſtance of not more than ſix leagues from Cairo. The beys lay with all their forces entrenched at Embabe. On the 22d, was fought the battle of the Pyramids, in which the reſiſtance of Mourat Bey and the mamelucs was entirely overthrown. On the 23d, Cairo was ſurrendered to the victorious invaders.

Ibrahim Bey, with the remains of the mameluc forces, had retired toward Syria. On the 8th of Auguſt, therefore, Bonaparte advanced from Cairo, in purſuit of the fugitives. Ibrahim, however, eſcaped with his treaſures and baggage into the deſert: and Bonaparte then went to viſit the Pyramids, and endeavoured without ſucceſs to diſcover whether they had been made the places of the temporary concealment of any part of the wealth of the Egyptians. Deſaix was, with another detachment, ſent up the Nile, after Mourat Bey; and gallantly forced the entrenchments of the mamelucs at Sediman. An inſurrection of the inhabitants of Cairo breaking out with violence on the 22d of October, was on the 24th finally ſuppreſſed by the French; who ſlew of the Turks between five and ſix thouſand men, and loſt themſelves a hundred lives in this fray. Bonaparte then applied for a time to regulate the government of Egypt, as a conquered country. His regulations were intended to hold the natives in peaceable ſubjection, while he ſhould proceed

through the deſert to the conqueſt of Syria.

In Syria, Ibrahim Bey, with the principal remains of the mameluc force and treaſures had taken refuge. Achmed Djezzar, pacha of Acre, received the mameluc chief with open arms. Bonaparte purſued, to anticipate any deſcent from Syria to reconquer Egypt, which might be meditated by the Turks and mamelucs, with their allies. Before proceeding on his journey thither, he, on the 6th of January 1798, took poſſeſſion of Suez. On the 10th and 16th of February, Regnier and Kleber made themſelves maſters of the village of El Ariſh, and drove the mamelucs from their encampment before the fortreſs belonging to that place. On the 18th, Bonaparte arrived, while they were urging the ſiege of the fort. On the 21ſt, it was ſurrendered by the garriſon under a capitulation. From Gaza, the mamelucs again fled at Bonaparte's approach. Jaffa was, after a few days ſiege, ſurrendered to general Kleber on the 7th of March. On the 19th, they advanced to inveſt St. John D'Acre.

At St. John D'Acre, the diſcipline and valour of the Turks were ſtill as unequal as before, to withſtand the impetuous attack, the well combined tactics, the ſkilful plans, and the eager vigilance of the French. But ſir Sydney Smith was in the harbour, with a Britiſh frigate. The defence of the town was directed by him, with the aſſiſtance of ſir John Douglas, the late major Oldfield, ſome other officers, and a handful of ſeamen and marines from the ſhip under his command. The Turks were more an encumbrance and embarraſſment, than aſſiſtants truly uſeful in defence. There was of the Britiſh no ſort of an approach to equality in numbers with the French. But Bonaparte had now, for the firſt time, to contend with an enemy to whom he was not, in any of the qualities of heroiſm, ſuperior. The Turks drew a force to ſurround and attack him in the rear; but over this at Loubi, at Sed-Jarra, and on the plain of Eſdrelon, he eaſily prevailed. Proviſions, artillery, and ammunition, were brought on board three frigates, and ſome other veſſels, for the uſe of the ſiege. In every attempt, however, Bonaparte's hopes were ſtill baffled by the Engliſh. Did he ſpring a mine? It failed of effect. Did he attempt a lodgement among the ruinous towers? He was compelled to abandon it. Did he attempt with all his troops to enter over the breaches in the walls? Their valour, their impetuoſity, were out-matched; and they were repulſed with terrible carnage. He repeated his aſſaults; but it was only to produce an uſeleſs waſte of lives. He was conſcious of the preſence of a genius ſuperior to his own. He could no longer perſuade his followers to return to periſh in the attack. Sir Sydney Smith, generouſly pitying the diſtreſs of an antagoniſt who was not unworthy of him, and believing that Bonaparte, with his followers, would periſh miſerably if they ſhould attempt to return through the deſert; propoſed by a flag of truce to receive them with kindneſs, if they ſhould rather chooſe to ſurrender to the Britiſh, than to riſk further the barbarous fury of the Turks; and to convey them in ſafety to any port in Europe, at which they ſhould deſire to be landed. The lofty ſpirit of Bonaparte would not purchaſe ſafety by ſuch humiliation. Though every hope might ſeem to be loſt, yet his firm, intrepid mind, would not deſpair. He abandoned the ſiege, and took his march back through the deſart to Egypt. It ſeemed impoſſible, that in the miſerable circumſtances to which they were now reduced, they ſhould not periſh on their return. To the aſtoniſhment equally of their friends and enemies, they arrived in ſafety at Cairo. The felicity of this retreat then appeared almoſt to efface the ignominy, and to compenſate for the misfortunes of the luckleſs ſiege of Acre. The Turks, in the mean time, landed a force near Alexandria.

But Bonaparte haſtened to meet them, and they were entirely defeated at Aboukir. They had ſeized the caſtle; but it was ſoon after the battle retaken by the French. Bonaparte, however, could not but ſee that the grand objects for which he had come upon this expedition were, by Nelſon's deſtruction of the fleet, and Smith's defence of Acre, for the preſent fruſtrated. He reſolved to relinquiſh the command of his army, and eſcape to France. On the 1ſt of October 1798, he arrived at Ajaccio in Corſica. On the 8th, he arrived at Frejus. He thence proceeded without delay to Paris, where he met a reception not unlike to that of Terentius Varro, at his return to Rome from the defeat of Cannæ.

He found the directorial government verging to its fall. The directors, conſcious that they had not kept their hands pure while in office, and dreading alike the royaliſts and the jacobins, were meditating how they might beſt eſcape from power, without danger to their lives, and without the loſs of the ſpoils which they had been enabled to appropriate. Bonaparte owed his exaltation to the chief command in Italy, to the part he acted at a former revolutionary criſis: and it was hence well-known, that the energies of his character were fitted to lead in a new revolution. With Sieyes, Ducos, and perhaps the other members of the directory, and with ſome of the leaders in that which was called the council of the elders, he concerted the change of the government, and the abolition of the directory. On the 9th of November 1798, the council of elders put the guards of the legiſlative bodies, by a formal decree, under his command; and authorized him to carry the members of the two houſes, even by force, if that were neceſſary, to St. Cloud. That part of the directory which might have inclined to reſiſt the change, was diſarmed by the ſudden tranſmiſſion of the command of the military force into Bonaparte's hands. By the tranſference of the ſeſſions of the legiſlative body to St. Cloud, proviſion was made againſt any inſurrection of the Pariſians in favour of the government about to be aboliſhed. After ſome ineffectual attempts againſt the change in the council of five hundred, that body was diſſolved at St. Cloud, much in the ſame manner in which Cromwell diſſolved the long parliament of England. On the 15th of December, a new conſtitution was promulgated, in which Bonaparte was elevated to the authority of firſt conſul.

His firſt great attempt in this character was to negociate a peace with Great Britain and Auſtria. He failed in the attempt; and in both Germany and Italy it became neceſſary to prolong the war for another campaign. In both theſe regions, the Auſtrian arms were not at firſt deciſively unſucceſsful. For a time, they ſeemed to have almoſt delivered Italy from the power of the French. But Moreau burſt into Germany with irreſiſtible force; and no effort of the imperial generals could prevent their troops from fleeing before the invaders, in the wildeſt diſmay. At the critical moment of the fate of Italy, Bonaparte led a French army, by an unexpected paſſage over the Alps, down on the Italian plains. The very boldneſs of the attempt ſecured its ſucceſs. In the battle of Marengo, on the 14th of June 1799, the French obtained under the firſt conſul's command one of the moſt glorious and deciſive victories which have ever crowned their arms; and by it they remained abſolutely maſters of the fate of Italy. The advantages thus obtained, were permanently ſecured to France by the peace of Luneville, negociated under Bonaparte's auſpices.

At peace with Auſtria, he ſtrove, but in vain, to break by a maritime league the naval ſtrength of Britain. The war was prolonged till he ſaw his favourite object of the conqueſt and colonization of Egypt utterly fruſtrated. It ended in the peace of Amiens, by the conditions of which the wiſhes of his country were nearly ſatisfied.

Since that period, his greatneſs has been ſtill ripening; and he now ſees himſelf confirmed for life in a conſular authority, greater perhaps than that of any monarch who ever ſat on the throne of France.

Bonaparte is, in his perſonal form, of middle ſtature; his eyes are dark; his complexion pale; his noſe, aquiline; his chin prominent. Like Charles the twelfth of Sweden, he is a ſtranger to none of the luxurious vices. He has lately entered the thirty-fourth year of his age.

ON PAINTING.

By Mr. EDWARD DAYES, Painter.

ESSAY II*.—*ON TASTE.*

'Tis taſte, 'tis genius, 'tis heavenly ray,
Prometheus raviſh'd from the car of day.

MASON'S FRESNOY.

TASTE in the arts muſt be conſidered as that faculty or thoſe faculties of the mind by which we are affected with, and form a right judgment in, works of the imagination. It is that which determines the painter in his choice, and from that choice we judge whether his taſte be good, or the contrary. Whether this faculty of the mind is to be acquired is doubtful; that it may be improved is unqueſtionable; hence it becomes our duty to avoid, particularly in our firſt outſet, if poſſible, the ſeeing, much leſs the copying, things deformed and chimerical as there is an acquired as well as a natural dulneſs. He whoſe taſte is delicately juſt may be ſaid to have received the higheſt poliſh from nature, and one of her choiceſt gifts; on the contrary, to want it, is to be dead to all the finer feelings. The man who poſſeſſes a juſtly cultivated taſte is let into a thouſand pleaſures unknown to the vulgar,

——— His the city's pomp,
The rural honours his. Whate'er adorns
The princely dome, the column and the arch,
The breathing marbles and the ſculptured gold,
Beyond the proud poſſeſſor's narrow claim,
His tuneful breaſt enjoys. AKENSIDE.

On the contrary, there are ſome men born with feelings ſo blunt and cold that they can hardly be ſaid to be awake during life. From a degree of exquiſite ſenſibility ariſe our notions of beauty and deformity in the natural as well as in the moral world, and as our different minds happen to be more or leſs exquiſite, the more or leſs ſenſibly do we perceive the various degrees of good and bad, and of courſe are more or leſs capable of being charmed with the right and beautiful, and diſguſted with the wrong and deformed. Hence it is that this ſenſibility conſtitutes what is termed genius, which is only the power or capacity of clearly conceiving and properly combining images, and of adding to mere theory practice: to which a ſound head and a good heart is as neceſſary as a delicate imagination; for we cannot poſſeſs true genius without as exquiſite a feeling for moral beauty as for what is great and beautiful in nature or maſterly in poetry, painting, ſculpture, and muſic.

The reverſe of true taſte is ſhown in magnificent parade and luxury; and in whatever is horribly glaring, extravagant, and unnatural in the laſt degree. Gold, ſhowy colours, gaudy tapeſtry, the heavy, clumſy, and whatever is ſuperfluous, will ever

* See an Eſſay to illuſtrate the Principles of Compoſition, as connected with Landſcape Painting, by Mr. E. Dayes, in our Magazine for February 1801.

paſs with the vulgar for elegance and greatneſs. So perſons of a bad taſte will prefer the forced, unnatural and exaggerated, in expreſſion, attitude, or colour, to the truely ſimple, noble, or beautiful. We ſhould be guilty of an error were we to attempt to eſtabliſh one principle of taſte only, for were we to eſtabliſh one as right, all the others muſt be wrong; hence the miſtake of ſir Joſhua Reynolds, in ſpeaking of the Hercules, Gladiator, and Apollo; for, though each of thoſe figures are perfect of their kind, yet ſir Joſhua affirms that the higheſt perfection of the human figure is not to be found in any one of them, 'but in that form which is taken from them all, and which partakes equally of the activity of the gladiator, of the delicacy of the Apollo, and of the muſcular ſtrength of the Hercules.' Such an opinion is contrary to nature, as it goes to deſtroy that variety ariſing from the active, the delicate, and the ſtrong: as well might we ſuppoſe a fine tree from conſolidating the various forms found in nature.

We muſt carefully diſtinguiſh between truth and taſte; for a thing may be true, and not poſſeſs one atom of taſte. The dutch and Flemiſh pictures are true, as far as mere imitation goes; but will any one ſay, the wretches one ſees in ſome of Rembrant's works are taſty, or can the women of Rubens be conſidered as ſuch; yet thoſe men poſſeſſed great taſte in colour, *chiaro-ſcuro*, &c. We ſhould be careful of miſtaking tinſel for gold; many who repreſent kings, do it by a great diſplay of ornaments, elſe make them ſtrut and ſtare, or have recourſe to a crown: where the greateſt profuſion of ornaments are admiſſible, we ſhould be ſparing in their uſe, for fear of making that fine we cannot make good. Taſte and genius have been called inſpiration, the gift of heaven, and our feelings have been irritated by mere words, that have alarmed and benumbed our faculties; but let us attend to the progreſs of our own minds, and we ſhall find that our taſte has improved in proportion to our induſtry to acquire knowledge. The old maſters have, in their turn, been held up as bugbears to frighten young artiſts; the Italian writers on the arts have on all occaſions uſed the words *heavenly* and *divine*, till they have operated as ſcarecrows, to create a terror in modern painters, many of whom have ceaſed to labour as competitors. We ſhould never ſuppoſe the moſt ſublime degree of perfection has been attained; the fact is, the moſt perfect works are not without their imperfections, and, while that is the caſe, there is room to improve it. M. Angelo is charged with heavineſs; Raphael as being dry, and poſſeſſing a poor *chiaro-ſcuro*; Titian, as defective in drawing; and Parmegiano as making his figures too tall: but, while thoſe conſiderations act as a ſpur to our induſtry, we are bound to venerate them for the great catalogue of perfections they have made us heirs to. It is from theſe they have obtained their renown, the imperfections being only foils. We ſhould never forget the obligations we are under to thoſe who have, by directing our ſtudies, introduced us to the arts; to our parents we owe our being, but to our teachers we owe the power of making a right uſe of it, a matter of no ſmall conſequence.

Taſte is not an imaginary ſomething, depending on the accident of birth, but ariſes from, and is immediately connected with, a ſound judgment. Were there not in art, as in every thing elſe, a ſtandard of right and wrong, all opinion muſt be capricious; but to acquire juſt notions we muſt habituate ourſelves to compare and digeſt our thoughts, be well read in human nature as connected with the characters, manners, paſſions, and affections of man; this, with ſome knowledge of the human mind, will, in time, enable us to diſtinguiſh right from wrong, which conſtitutes the true principle of taſte.

We muſt diſtinguiſh real from apparent truth in our purſuit Real truth does not depend on opinion, it is immutable, fixed, and permanent, and in it muſt be ſought whatever is grand and beautiful. Apparent truth depends on faſhion, and, like it, is fluctuating and uncertain; it may be conſidered as a ſort of impoſtor, for, t. ough it carries with it the appearance of ſcience, yet it is far from having any true connection with it. Such is the conſtrained air and erect attitude taught in dancing, the violent actions uſed in theatres, and many others not countenanced by nature, but depending wholly on cuſtom for ſupport. The artiſt muſt tread in the ſimple path of nature, and leave thoſe adventitious and forced airs to the perſons to whom they belong, the dancing-maſter, hair-dreſſer, &c. Unfortunately there is a faſhion in art, and which the vulgar would attempt to force upon us. Whatever is ſlight, crude, or undetermined, is all the rage, and the artiſts appear to be falling into a habit of painting without form; that deciſion obſervable in the old maſters, and which is inſeparable from the grand ſtyle, is almoſt neglected. To paint for what is termed effect may anſwer the purpoſe of the idle, and thoſe who make a trade of the art, but ſuch a practice will not ſatisfy the diſcerning. The only apology the artiſt can offer is, that he muſt fiſh with ſuch baits as will take: unfortunately, he does not live to paint, but paints to live. The Greeks had a great advantage over the moderns in having philoſophers to judge of their works, and ſtates to reward them.

We muſt not reject works of art becauſe they do not poſſeſs the firſt degree of taſte; for they may be taſty though not ranking in the firſt claſs; juſt as we ſay a thing is ſweet, though it is only in a certain degree ſo. It is the condition of man to labour much to obtain little; this ſhould make us cautious of pronouncing haſtily on works of art: none are unexceptionable, and perhaps there are but few from which we may not derive ſome benefit.

Of the various degrees of taſte, the grand conſiſts in the choice of objects ſuperior to the common (not only in man but in nature) and in the omiſſion of ſubordinate and trivial parts. Beautiful taſte ſelects the beautiful for imitation. A union of the grand and beautiful will form the beſt and moſt perfect taſte. Meanneſs of taſte expreſſes diſtinctly all the trivial and little parts of objects, hence the whole becomes little. The debaſed or corrupt, delights in things monſtrous, deformed, and ugly: it may be called the *groteſque*, and the praiſe beſtowed on it ſhould be as limited as the views of the artiſt. Thoſe who have ſucceeded beſt in this way, have been praiſed by the ignorant in proportion to the *uglineſs* of the objects introduced in their works. Great and noble ſpirits will ever admire the ſublime parts of creation, while the rural and all the more humble beauties will beſt aſſociate with domeſtic virtues. Little minds will ever be employed in the purſuit of trifles, while the elevated ſoul will ſeize mountains in its graſp:

Who that from Alpine heights his labouring eye
Shoots round the wide horizon to ſurvey
Nilus or Ganges rolling his bright wave
Through mountains, plains, through empires black with ſhade,
And continents of ſand, will turn his gaze
To mark the windings of a ſcanty rill
That murmurs at his feet? AKENSIDE.

Wiſdom is the parent of taſte and virtue, the offspring of taſte is pleaſure—of virtue, happineſs. A man without taſte may be ſaid to be without piety, as by not feeling he is incapable of offering that praiſe which reſults from an admiration of the beauties of creation; he has a natural diſreliſh for what is good; he becomes the enemy of all the world;

he feels not for a relative, a friend, or ſociety: the law of the land is his goſpel, and his attorney regulates his conſcience; he lives without love, and dies without pity.

We have two ways open to us to acquire a good taſte; the firſt and moſt difficult by a reference to nature, the ſecond is through the medium of art. But, as the former would prove too difficult a taſk, we muſt therefore, firſt diligently apply ourſelves to diſcover it in the works of the moſt celebrated artiſts, and thereby fit our ſelves to purſue the ſame inquiry in nature.

Beſide a perfections of judgment, we have alſo a truth of hand to attain. To this end, having ſelected an object worthy our attention, we are bound to imitate it with all the fidelity we are maſters of; and, as each maſter has in him excellencies not to be found in any other, we muſt avoid a partiality, or we ſhall loſe the benefit to be derived from them all. Thus we ſhall obtain a maſs of information not to be derived from any particular one. Hence the benefit reſulting from viewing galleries of pictures, as the various maſters become correctives to each other, and truth reſults from their general teſtimony. The company and converſation of men *well informed in the arts* will contribute to improve our taſte, becauſe artiſts form opinions on the works of different maſters according to their peculiar manner of thinking, which will naturally furniſh us with hints which we did not attend to, and enable us to enjoy other men's parts and reflections as well as our own. Information from this ſource muſt not, however, be generally expected; the artiſts are not all *wiſe* or *liberal*; many produce an effect without knowing the cauſe, ſome are moroſe and reſerved, others unwilling to teach another what they have with difficulty learned, and *ſome few* will be found eaſy and communicative.

When we have made ourſelves acquainted with the beauties of art, we may conſider ourſelves at liberty to act on our own foundation; but we are bound to ſhow in our works that we act from an impreſſion made on our minds by nature, or we ſhall never excite ſimilar ſenſations in the ſpectator, but ultimately ſink into manneriſts or imitators. A general likeneſs prevailing through the whole of his works muſt ſtamp the artiſt a manneriſt; we mean not, however, ſuch a ſimilitude as may happen by chance. The adoption of a grace or an ornament, by no means implies plagiariſm. If they are introduced with fitneſs, there can be no charge of want of judgment. This is very different to uſing a viſible or ſtriking part of a compoſition, which no independent ſpirit would ſtoop to. Repreſentations of ancient urns, armour, coſtumes, buildings, &c. will be of more value to the genuine artiſt than even the fineſt hiſtorical or other compoſition. A knowledge of the latter he ought to poſſeſs before he attempts to compoſe, and the utility of urns, armour, &c. will be obvious. Falling into imitation has produced what has been termed the *ſchools*, and ultimately proved their ruin; Nature ſufficiently revenges herſelf on thoſe who neglect her.

In the arts, as in every branch of ſtudy, the firſt thing we have to learn is what others have done, or, in other words, the preſent ſtate of human knowledge. Without this neceſſary information we ſhall ſtand as children only, and, of courſe our improvement will be but ſlow; beſides, we ſhall have the mortification of finding our imaginary diſcoveries anticipated, and our labour fruitleſs. Another advantage will reſult from ſuch an enquiry, the learning how much experience is within the reach of diligence.

Imitation is the firſt part of painting, the ſecond is a judicious ſelection; but even in the imitative part we muſt cautiouſly ſhun objects deformed and baſe if we hope to poſſeſs the firſt taſte, and only copy ſuch

as will teach us greatneſs, beauty or accuracy. Such a conduct will enable us to reflect with wiſdom, and to diſcover the cauſe, or from whence ariſe thoſe perfections by which we are moved. If in the courſe of our inquiry we find a perfection prevail through the whole of an artiſt's works ſo as to become a character, we may depend on it that was the kind of perſon ſought by the maſter; as in M. Angelo, greatneſs of ſtyle, knowledge of the figure and foreſhortening; in Raphael, expreſſion, compoſition, and fine drapery; in Titian, colouring; in Parmegiano, grace; in Rubens, fine *chiaro ſcuro*, &c. Among the Britiſh artiſts we may conſult Reynolds for grace, colour, and a fine *chiaro-ſcuro*; and in landſcape, the great Wilſon, Gainſborough, and Barret, and the works of many juſtly celebrated living artiſts. Much will depend on induſtry; if we ſee a grace or beauty in a maſter we muſt endeavour to make it our own, not merely by copying it, but by inveſtigating its cauſe, in which we ſhall be helped by imitation. If a compoſition ſtrikes, a ſketch of the whole may be made: ſo of the general diſpoſition of the colouring; for, after a certain facility of hand is obtained, we muſt depend on our own exertions; therefore laboriouſly copying great compoſitions would be only loſs of time. Studies from particular parts may be made, ſuch as are remarkable for ſome peculiar excellence; for, unfortunately, the beſt works have much of common-place matter in them. From what has been obſerved it will be evident we muſt, in the firſt inſtance, either go to, or ſuffer ourſelves to be guided to thoſe works of art time has ſtamped a value on, as it is eaſier to learn from that in which the choice is already made, remembering till we can go alone we muſt depend on the opinions of others. But the ultimate end of our inquiry muſt be *that independence reſulting from acting on an original principle*, or ſeeking thoſe productions in nature with which art abounds, or in other words, giving thoſe energies to the ſoul that leave it to act free of all reſtraint.

CURIOUS PARTICULARS RESPECTING BEES.

[By Mrs. Cooper, of Wormley in Hertfordſhire.]

HAVING read many curious accounts of the management of bees by different authors, with plans propoſed for taking their honey without deſtroying them, I was reſolved to become an apiator, and on the 25th of Auguſt 1800, I purchaſed a hive of bees, which was ſuppoſed, by computation of judges, to weigh about twenty pounds. I fed them in the winter following with brown ſugar wetted with ale, which I put into a vehicle I call a boat, from its ſimilitude to a Caffree canoe, and which I make out of the young ſhoots of elder dried for the purpoſe, and juſt big enough to puſh into the door of the hive: ſometimes I gave two a day, but never more, the whole not being more than a good table-ſpoonful. When the flowers began to ſhow themſelves in the ſpring of 1801, and I perceived them coming home loaded, I only fed them on ſuch days as they could not go out, and deſiſted from it entirely in the month of April.

The bees appeared healthy and very numerous, frequently covering the whole hive outſide, which I thought indicated their going to ſwarm: but in this I was totally diſappointed; and as the ſeaſon declined I began, the better to preſerve my bees, to feed them as the preceding year; which I continued until the flowers and honey dews convinced me they had enough. On the 4th of June 1802, my ſtock ſent forth a very fine ſwarm, which I

hived; and kept a good look-out for a caſt, but was in this diſappointed. On going to look at the hive about five o'clock one afternoon I found in front of it, on the graſs, a *queen bee*, anſwering the deſcription of all authors; but with this difference, though alive there was not any bee near her. I brought her into the houſe to examine her thoroughly, and to ſee if ſhe had met with any accident, but could not perceive any defect. I then put her on a twig, and, placing her at the door of the hive, the bees within ſoon led her into it. The time being elapſed when I had reaſon to expect a caſt, and anxious to increaſe my ſtock, I purchaſed from a neighbour, on Thurſday the 8th of July, a caſt, for which I paid five ſhillings and ſixpence; and on his bringing it home, I deſired him to remove my old hive to a new place, the better to ſee if any dirt or moth was under it, in order to clean it, and then to place the new caſt on the ſpot the old had occupied. This he performed.

The next day all was quiet; but the day after I perceived an uncommon buſy communication between the two hives; and on the Sunday I found the old hive totally deſerted, and that the bees had all joined the new caſt without any fighting whatever, leaving me a hive completely full, out of which I immediately took twenty pounds of fine liquid honey. Thus I have ſaved my bees; which, I doubt not, were allured for want of room, their hive being quite full, and the new one being put in its place.

As chance has produced many events, it may be worth the while of any apiator to try, by the purchaſe of a caſt at the time of the year I have done, whether it will not equally ſucceed *. I mention the time, becauſe I have doubts whether a later ſeaſon will permit the bees to ſtock themſelves with food ſufficient for the following winter; and it muſt be obſerved that this year, 1802, has proved a moſt uncommon fine year for bees, from the numerous honey-dews we have had.

* Does not the iſſue of the experiment related in this paper ſuggeſt alſo another? New empty hives have ſometimes been placed beſide full old hives, in the hope that the new ſwarm might take up its abode there; but we believe it has ſeldom anſwered the wiſh of the bee-maſter. If, however, in the caſe before us, the old hive was put in a new place, and then an empty hive put on its old ſite, is there no probability that the bees would take poſſeſſion of the new hive; perhaps merely from want of room, but poſſibly from an idea that the contents of the old hive would ſtill remain in ſtore for them?

ON LONGEVITY.

[From Eſſays on Miſcellaneous Subjects, by Sir John Sinclair, Bart.]

Introduction.

THE means of preſerving health, and of attaining great age, are ſubjects which ſeem to be well entitled to the peculiar attention of every thinking man. In regard to the former, there is no queſtion: the pleaſure that ariſes from the poſſeſſion of health, and the diſtreſs which ſickneſs occaſions, are perpetual mementos that health cannot be neglected. But as to the latter, the propriety of aſpiring to long life has been doubted; and it is ſaid, that after a perſon has lived for fifty or ſixty years, and has fulfilled his duties as a man, that he had better retire to make way for others, and that the ſooner he quits theſe ſublunary ſcenes the better. Such ſentiments, however, ought not to be indulged. If perſons lived only for themſelves, and for the gratification of their own paſſions, and to promote their own intereſts alone, this might be the caſe. But if we live, as we

ought to do, to promote the happineſs of others as well as of our own, and if by living long, we can be of more ſervice, from the knowledge which greater experience, and longer obſervation muſt neceſſarily furniſh, the reſult is, that we ought to live as long as we have health and ſtrength to perform good actions to others, and that the power of doing good, ought to be the proper limit by which our wiſhes for exiſtence ought to be bounded: nor ought it to be omitted, that there is an evident and neceſſary connexion between good health and longevity, as it is impoſſible to poſſeſs the one, without its contributing to the enjoyment of the other.

In ſketching out ſome obſervations on this important ſubject, it is my intention to ſtate, 1. The circumſtances which tend to promote longevity. 2. The rules which have been adopted by thoſe who have attained great age. 3. The peculiar deſcription of countries moſt remarkable for long life; and, 4. To add ſome tables of longevity and the duration of human life.

I. Circumstances tending to promote Longevity.

The circumſtances tending to promote longevity may be conſidered under the following general heads:—1. Climate. 2. Form of the individual. 3. Parentage. 4. Natural diſpoſition. 5. Situation in life. 6. Profeſſions. 7. Exerciſe or labour. 8. Connubial connections. 9. Sex; and, 10. Renewal of age.

1. *Climate.*—In the firſt place, climate ſeems to be of conſiderable importance; and it may be laid down as a general rule, that the moderate, or even the coldeſt climates, are the moſt favourable to long life. Heat ſeems to relax and enfeeble, cold to ſtrengthen and brace, the human frame. The diet alſo of hot countries is not ſo nouriſhing as that of cold *; and there is in general a greater diſpoſition, and greater opportunities to indulge in various exceſſes in the former, than in the latter. But if the climate be cool, a rainy atmoſphere ſeems to be leſs unfavourable to longevity than could well be imagined; for Ireland, which is a wet country, boaſts of a great number of old people. And a very large proportion of the aged who have lived in England and Scotland, have reſided in the weſtern, and, conſequently, the rannieſt counties in the iſland †.

2. *Form.*—The next circumſtance to be conſidered is, the form and ſize of the individual. It is generally admitted, that perſons of a compact ſhape, and of a moderate ſtature, are the moſt likely to live long. Heighth often originates from the diſproportioned growth of ſome particular part of the body, which neceſſarily has a tendency to engender weakneſs and diſeaſe. Tall perſons alſo are apt to acquire a habit of ſtooping, which contracts the cheſt, and is a great enemy to free reſpiration; whereas the ſhort-ſized find little difficulty in keeping themſelves erect, and are naturally much more active, by which the animal functions are retained in a ſtate of much greater perfection. The only diſadvantage attending a ſhort ſtature is, that it is frequently accompanied with corpulence, which is rather unfavourable to long life.

3. *Parentage.*—Being born of healthy parents, and exempted from hereditary diſeaſe, are circumſtances evidently favourable to longevity. A

* In cold countries they live more upon animal, in hot countries upon vegetable, food, and fruits. A judicious mixture of both is the beſt plan to purſue, but of the two, animal food is the moſt nouriſhing.

† Moiſture, it would appear, is not prejudicial to health, if it does not affect the purity of the air. Even ſtagnated water, if in peat bogs or moraſſes, is not unwholeſome, as the water, by the aſtringency of the peat, is prevented from becoming putrid. Lincolnſhire, alſo, and ſeveral of the marſhy counties of England, can produce a number of inſtances of great age, but probably they were from the more elevated parts of theſe diſtricts.

puny frame, like Cornaro's, may, by the greateſt care and anxiety, be preſerved in exiſtence; but thoſe who inherit health and ſtrength, and are born with robuſt conſtitutions, can alone expect not only to live long, but to enjoy the pleaſures and comforts of life, while they continue to poſſeſs it.

4. *Natural diſpoſition.*—Longevity alſo ſeems to depend much upon good temper, mixed at the ſame time with a cheerfulneſs of diſpoſition, or good ſpirits *. Neither the iraſcible, nor thoſe who, from deſpondency, ſink under the croſſes of life, can expect to live long. Even thoſe who ſuffer their ſtrength and ſpirits to be exhauſted by ſevere ſtudy, or other mental exertions, ſeldom reach great age. In the long liſt of 1712 perſons who lived about a century, Fontenelle, (who did not quite reach 100 years) is the only author of any note; and his great age is aſcribed to the tranquil eaſe of his temper, and that livelineſs of ſpirits for which he was much diſtinguiſhed; for he retained to the laſt 'the youth of old age,' as the French happily expreſs it.

5. *Situation of life.*—It is commonly obſerved, 'that it is not the rich and great, nor thoſe who depend on medicines, who become old, but ſuch as uſe much exerciſe, are expoſed to the freſh air, and whoſe food is plain and moderate.' And it is certain that perſons of that deſcription, in general, ſtand the beſt chance of living long. At the ſame time, though inſtances of old age in great and noble perſonages are not often to be met with, yet they may be as many, 'in proportion to the ſmaller number of ſuch perſons,' as thoſe in the lower but more numerous claſſes of ſociety. Nor is there any thing inconſiſtent in power, rank, or wealth, being accompanied with a long period of exiſtence, provided other circumſtances are favourable to longevity.

6 *Profeſſions.*—In the next place, it is evident that long life muſt depend much on the manner in which the individual is employed. Unhealthy occupations generally become fatal. Yet Peter Prin, a glaſs blower, is ſaid to have attained the great age of 101; and John Tyler, a miner at Leadhills, in Scotland, is ſuppoſed to have reached even 132 years †. His age, indeed, could not be proved by direct, but it reſts on very ſtrong circumſtantial evidence; and a perſon of the moſt undoubted authority, (Dr. Walker, profeſſor of Natural Hiſtory in the univerſity of Edinburgh) informs me, that in his muſcles, joints, and in his whole conformation and aſpect, he wore the appearance of more remote antiquity than he had ever ſeen in any human creature. But on the whole, farmers, gardeners, and labourers in the country, are in general the longeſt lived. Foot ſoldiers alſo, who have ſurvived the dangers of war, are remarkable for long life. They are generally ſtout and vigorous men, and the regularity to which ſurviving ſoldiers muſt have accuſtomed themſelves, while the careleſs and diſorderly drop off, the erect poſture to which they have been trained, and being of courſe men well formed by nature, and habituated to march and walk well, (which familiarizes them to a natural and healthy exerciſe) all combine in their favour.

7. *Exerciſe or labour.*—It is alſo proper to remark, that not only moderate exerciſe, but even labour, if not too ſevere, contributes to good health and old age. In many inſtances, perſons have worked at threſhing, and other laborious occupations, expoſed to a current of freſh air, after they had paſſed beyond the age of 100, and, if accuſtomed to them, they do not appear to have ſuffered any inconvenience from ſuch exertions.

8. *Connubial connections.*—Nor ought

* Hence the great age to which many of the French nobility lived, particularly before the regency of Orleans.

† It is ſaid that neither of theſe inſtances ought much to be wondered at, as a glaſs-blower is conſtantly expoſed to freſh and dry air, and the labour of miners under ground is not for many hours, and they generally reſide in hilly diſtricts.

it to be omitted, that a large proportion of the long-lived, have preferred a married to a ſingle ſtate, and in general have left behind them a numerous family. Whether a life of celebacy occaſions diſeaſe, or leads to irregularity, or ſours the temper, or to whatever other cauſe it ought to be attributed, may be a ſubject of diſpute, but it is certain, that the number of ſingle perſons who live long, bear no proportion to the married *.

9. *Sex.*—Further, though a greater number of males are born than of females, at leaſt in European countries, yet there is reaſon to believe, that of the two ſexes, women reach old age in the greateſt proportion. For this various cauſes may be aſſigned, as the greater regularity and temperance of their mode of living, their being leſs expoſed to dangers and hardſhips, leſs ſubject to violent agitations, and generally endowed with more cheerfulneſs and gentleneſs of diſpoſition.

10. *Renewal of youth.*—In the laſt place, among the ſymptoms of longevity, none is more ſtriking than when nature ſeems to renew itſelf, by producing, even in old age, new teeth, new hair, &c. but the inſtances of this are extremely rare.

II. Rules tending to promote long Life.

We ſhall now proceed to ſtate ſuch rules as have been followed by thoſe who have attained great age, as they may furniſh ſome hints that may be ſerviceable to others.

The plan laid down by the celebrated Cornaro, is well known, and the abſtemious manner in which he lived, has often been recommended to the imitation of others; but I queſtion much whether many would wiſh to lead the ſame life, for the ſake of mere exiſtence. Life is no longer deſirable than while it can be enjoyed with ſome degree of ſatisfaction, and it is of little conſequence, if a perſon merely vegetates, whether he lives or not.

Without entering therefore into various particulars, fitter for the diſcuſſions of experimental philoſophy, than for real life, (as weighing the food taken, &c. &c.) we ſhall proceed to mention the rules which have been found the moſt effectual, and which are the moſt likely to be carried into practice. They may be claſſed under the following heads:—1. Food. 2. Clothing. 3. Habitation. 4. Labour or exerciſe. 5. Habits or cuſtoms. 6. Medicine; and, 7. Diſpoſition of mind.

1. *Diet.*—The importance of wholeſome food, for the preſervation of health and long life, and the avoiding of exceſs, whether in eating or drinking, need not be dwelt upon. Some inſtances, indeed, are mentioned of perſons who have continued to commit exceſſes, and have lived long; but theſe are to be conſidered in no other light than as exceptions from a general rule; and it may reaſonably be contended, that if ſuch perſons lived to a great age, notwithſtanding their intemperance, they would have lived much longer had they followed a different courſe.

2. *Clothing.*—It is equally unneceſſary to detail at any length, the neceſſity of warm clothing, more eſpecially in advanced life, and during the cold ſeaſons, as the beſt mode of preventing a number of diſeaſes to which old men are particularly expoſed, and which, by no other means, can be avoided.

3. *Habitation.*—The health of every individual muſt greatly depend on the place where he reſides, and the nature of the houſe which he inhabits; and as it has frequently been remarked, that the greateſt number of old people die in winter, and that many individuals, in a weak and conſumptive ſtate, are obliged to fly to warmer climates as the only means of ſafety, it has thence occurred to Dr. Pearſon, that it would be of ſervice both to the aged and to the conſumptive, to have houſes erected of ſuch a peculiar con-

* This applies to both ſexes, in particular to the male. Dr Ruſh of Philadelphia aſſerts, that he never ſaw but one unmarried man exceed fourſcore years.

ſtruction that the air could always be preſerved, not only pure, but nearly of the ſame, and of rather an elevated temperature, ſo that the invalids who reſided in them ſhould never be affected by the viciſſitudes of the ſeaſons. Such an idea, it muſt be admitted, cannot be a general remedy or reſource, but it is well entitled to the attention of thoſe who are in affluent circumſtances, by ſome of whom, it is to be hoped, a hoſpital for the aged and the conſumptive will be erected, and the experiment fairly tried, both for their own ſakes, and for that of human nature in general.

4. *Exerciſe and labour.*—That either exerciſe or moderate labour is neceſſary even to aged perſons, for the purpoſe of preſerving the human frame in order, can hardly be queſtioned, provided any great exertion is avoided, than which nothing is more likely to deſtroy the ſprings of life, particularly when theſe become feeble. Travelling in moderation alſo, from the change of air and ſcene, has been found of great uſe.

5. *Habits and cuſtoms.*—In the next place, good health, and conſequently longevity, depends much on perſonal cleanlineſs, and a variety of habits and cuſtoms, or minute attentions, which it is impoſſible here to diſcuſs. It were much to be wiſhed, that ſome author would undertake the trouble of collecting the reſult of general experience upon that ſubject, and would point out thoſe habits, which, taken ſingly, appear very trifling, yet when combined, there is every reaſon to believe, that much additional health and comfort would ariſe from their obſervance.

6. *Medicine.*—It is a common ſaying, that every man, after the age of forty, ſhould be his own phyſician. This ſeems, however, to be a dangerous maxim. The greateſt phyſicians, when they are ſick, ſeldom venture to preſcribe for themſelves, but generally rely on the advice of their medical friends. Perſons who pretend to be their own phyſicians, are generally much addicted to quackery, than which nothing can be more injurious to the conſtitution. It is eſſential to health, that medicines ſhould never be taken but when neceſſary, and never without the beſt advice, in regard to the commencement, which ought not to be too long delayed, otherwiſe much benefit cannot be expected from them, and alſo with reſpect to nature or ſort, quantity, and continuance.

At preſent, the powers of phyſic, it is generally acknowledged, are extremely bounded. The medical art, however, is probably ſtill in its infancy, and it is impoſſible yet to ſay, to what perfection it may reach, not only in conſequence of the new improvements which chymiſtry daily furniſhes, but alſo of thoſe which may be made, by the diſcovery of new and valuable plants, in countries either already known or hitherto unexplored, and indeed the new uſes to which old medicinal plants may be applied. Perhaps ſuch diſcoveries will be much accelerated, when, inſtead of being left to the zeal and induſtry of individuals, they ſhall meet with that public encouragement and protection, to which they are ſo peculiarly well entitled.

7. *Diſpoſition of mind.*—In the laſt place, nothing is more conducive to longevity than to preſerve equanimity and good ſpirits, and not to ſink under the diſappointments of life, to which all, but particularly the old, are neceſſarily ſubjected. Indeed, this is a point which cannot be too much inculcated, for experience ſufficiently demonſtrates, that many periſh from deſpondency, who, if they had preſerved their ſpirit and vigour of mind, might have ſurvived many years longer.

III. Countries remarkable for Longevity.

The countries the moſt remarkable for long life are thoſe of a hilly nature. We are informed by Pallas, that the inhabitants of the mountain-

ous diſtricts of the province of Iſeſk, in the northern parts of Siberia, live to a great age; that people of 100 years are very common; and that he ſaw an invalid ſoldier aged 120. The inhabitants of the plains in their neighbourhood, are, at the ſame time, by no means ſo healthy or ſo long lived. Buffon places the mountainous diſtricts of Scotland at the head of a liſt containing thoſe parts of Europe the moſt diſtinguiſhed for longevity; and, indeed, there is no country in Europe, where, in proportion to its population, a greater number of individuals reach to ſixty, and thence to eighty, and even ninety years of age, in full poſſeſſion of all their faculties, both perſonal and mental, than is the caſe in that part of Great Britain *. There is alſo every reaſon to believe, that many of the departments of France and the mountainous diſtricts of Germany, Hungary, Sweden, Norway, and even thoſe of Spain, Portugal, Italy, and America, will produce extraordinary inſtances of longevity, whenever any particular enquiry is made regarding that intereſting circumſtance.

IV. Tables of Longevity.

Having thus diſcuſſed the ſubject of longevity in general, it may not be improper to lay before the reader the following table, explaining the ſhortneſs of human life, and pointing out how few there are, in proportion to the number born, who reach even the period of ſixty years †.

Of a hundred men who are born, there die, and according to Hufeland,

Under	10	50
Between 10 and	20	20
20 and	30	10
30 and	40	6
40 and	50	5
50 and	60	3
		94

Hence it would appear that there are only ſix out of a hundred, who ſtand a chance of living beyond ſixty years.

Of perſons who have lived above a hundred years, the induſtrious Haller has collected 1113 inſtances, and gives the following ſtatement of the duration of their lives.

Of thoſe who lived from 100 to 110 years, the inſtances have been above		1000
From 110 to 120 about		62
120 to 130		29
130 to 140		15
140 to 150		5
152 (Parr)		1
169 (Jenkins)		1
		1113

But in a recent publication, the following table is given as the reſult of a more extenſive collection of inſtances of longevity.

Of males and females, who lived

* In a work containing a collection of inſtances of longevity, for no leſs a period than 733 years, namely, from A. D. 1066 to 1799, (by J. Eaſton) in which there is given the name, age, place of reſidence, &c. of 1712 perſons, from all parts of the world, who had attained to a century and upward, 170 are ſtated to have been natives of Scotland, and the two moſt remarkable in the whole liſt are Kentigern, a native of Scotland, and Peter Torton of Temeſwar, in Hungary, both of whom attained the great age of 185 years. This Kentigern, alſo known under the name of St. Mungo, was the founder of the biſhopric of Glaſgow. The following verſes were made on his extraordinary age and place of interment:

Cum octogenos centum quoque quinque vir annos
Complerat, Sanctus eſt Glaſgow funere functus.

Spottiſwood's Hiſtory of the Church of Scotland, page 11 and 112.

† On the Art of prolonging of Human Life; a work written by profeſſor Hufeland of Jena, in Germany.

from 100 to 110 years, both inclusive, the inſtances have been	-	1310
Above 110 to 120	-	277
120 to 130	-	84
130 to 140	-	26
140 to 150	-	7
150 to 160	-	3
160 to 170	-	2
170 to 185	-	3
		1712*

Conclusion.

Such is the ſubſtance of the obſervations which have occured to me on this intereſting ſubject. I ſhall conclude with remarking, that on the whole, it is more than probable, by proper attention and good management, perſons in general, might not only live longer, but might enjoy life with more reliſh, than is commonly the caſe at preſent; and it is to be hoped, in reſpect of this, as well as of many other particulars, that human nature is ſtill in the threſhold of acquirement, that it will yet obtain greater and more important acquiſitions of knowledge, and may reach further improvement, both with regard to the extent of perſonal and mental gratifications, which our ſpecies may be found capable of enjoying, and alſo the means of poſſeſſing them, with more ſatisfaction and comfort, and for a much longer period of time.

* See Eaſton on Longevity, printed in 1799.

ACCOUNT OF BIRMINGHAM.

[By Mr. Nemnich.]

THIS famous town is ſituate in the north-weſt corner of Warwickſhire, and nearly in the centre of the kingdom, at the diſtance of about 120 miles from London. The name was anciently written Bromwychham, and is at preſent by many ſo pronounced.

There is no good authority for the tradition, that the ancient Britons and the Romans had at this place works for forging armour. When Leland wrote in the reign of Henry the eighth, Birmingham was a very ſmall place, inhabited by ſome few partiſans, who made knives and nails. Even a hundred years after that, in 1676, it was thought ſcarcely to deſerve the name of a market town. Its firſt trade of any conſequence conſiſted in the tanning of leather; but that, though of great antiquity, had about the end of the ſeventeenth century declined in a manner to nothing.

Soon after the revolution, the manufacture of arms was begun here. The making of buttons was next tried, then that of buckles. About the middle of the eighteenth century, the manufacture of both theſe articles was in this place conſiderable. The moſt flouriſhing period of the manufactures of Birmingham was between 1790 and 1792. The quantity of the goods here manufactured in 1799, was not above half of what was made in 1791.

The population of the town was in the year 1690 not more than 4000 ſouls. This number was more than doubled before the end of that century. In 1741, the inhabitants were 24,660. They were augmented between that year and 1778, to more than twice as many. In the next fourteen years, they had riſen to between ſeventy and eighty thouſand. By the effects of the war, they are ſuppoſed to have been diminiſhed. Yet their preſent number is 73,670.

Of the cauſes of the advancement, and the occaſional decline of the manufactures of Birmingham, I am leſs able to ſpeak. The orders for arms immediately after the revolution, were given by government, and being on terms ſufficiently advantageous, brought wealth into the town, which ſerved as a capital for the extention of the trade. The town then roſe into

ſome celebrity for its manufactures. The importation of French wares was prohibited. England produced theſe articles in abundance ſufficient for its own conſumption. Buttons were made in London. But as the neceſſaries of ſubſiſtence were cheaper at Birmingham, and the raw materials eaſier to be procured, it ſoon became more convenient for the merchants in London to purchaſe buttons at Birmingham, than to have them manufactured in the capital. To ſuch extent was the manufacture of buttons by ſuch means carried, that it alone gave employment to above 20,000 hands in Birmingham, and its environs. Similar was the progreſs in the manufacture of buckles. When theſe manufactures were here proſecuted with ſuch ſucceſs, ſtrangers came from all parts to embark new induſtry and capital in the ſame branches of trade. The quality of the manufactures of Birmingham came to be diſtinguiſhed with a preference in foreign markets. France, which had formerly ſupplied England with hardware, now took large quantities of theſe goods from Birmingham; and the ſale to the Germans was continually increaſing. Engliſh toys and hardware became famous above all others in Germany. And Birmingham became, what it is expreſſively termed by Burke, *the Toy-ſhop of Europe.*

Birmingham is indebted for much of its preſent proſperity to the talents, capital, and enterprizing ſpirit of certain eminent individuals, who have carried on trade here. Baſkerville applied his inventive genius to perfect the japan-manufacture, with a ſucceſs which has proved the moſt beneficial to the town. John Taylor, father of Mr. Taylor, now an opulent banker in Birmingham, was the firſt that made gilt buttons, for which the demand ſoon became ſo great that he had orders to the value of 800l a week. Some of his journeymen who wrought in the manufacture of japanned ſnuff-boxes, earned commonly a guinea and a half of weekly wages. Taylor died in 1775, leaving to his heirs a property of 200,000l ſterling. The town owes ſtill more to the enterprizing and ſucceſsful induſtry of Mr. Matthew Boulton.

Birmingham could never have riſen to its preſent proſperity, had it not been for the diſcovery of ſome copper-mines which began to be wrought, only about the end of the ſeventeenth century. It was ſome time before there aroſe a ſufficient demand for the ore they furniſhed. Between the years 1720 and 1730, England was ſupplied with copper chiefly from Holland and Hamburgh. Even in the years 1745, 1746, and 1750, great quantities of copper tea kettles, pans, and boilers, were imported into England from abroad. About the year 1750, the mine-maſters and the manufacturers came to a mutual underſtanding concerning their common intereſts, in conſequence of which an end was put entirely to the importation of utenſils of copper, and the copper-manufactures of Birmingham were improved ſo as to obtain a general preference in the markets. The capital article of buttons was hence brought to its perfection. And the various manufactures of braſs, pinchbeck, prince's metal, and other metallic mixtures, had hence their origin.

The capital and the enterprizing ſpirit of the Britiſh nation have atchieved at Birmingham what is unexampled in other countries. Pit-coal was formerly drawn to this town in waggons from Wedneſbury. It was calculated, that the expence of the carriage would be one half leſs if they might be brought by water. An act of parliament for the formation of a ſuitable canal was obtained in the year 1767. At an expence of 70,000l ſterling, this canal was completed for a ſpace of twenty-two miles, to a junction with the Staffordſhire canal, by which the manufactures of Birmingham are diſtributed to Briſtol, Liverpool, and Hull. The ſhares in

this canal, of which no one perſon was allowed to hold more than ten, coſt originally each 140l ſterling. Their price ſoon roſe to 370l each. And in 1792, it was not leſs than 1170l each. The veſſels navigating this canal are not to exceed each twenty-five tons burthen.

The manufacturers had long, no way of exporting the produce of their manufactures, but by London. At preſent, there are in Birmingham itſelf merchants who conduct almoſt all its foreign export trade.

Of the recent decline of Birmingham, there are various cauſes.—One of theſe is to be found in the war.—Another is the great fluctuation in the price of copper. The price, for inſtance, is often low when patterns are ſent abroad; but riſes, when orders are received upon theſe patterns; ſo that it becomes impoſſible to fulfil, without a loſs, orders from which there was reaſon to expect a great profit. If the price be high when patterns are ſent abroad; the anſwer then is, that abroad the goods are to be obtained at a cheaper rate. The copper manufactured in Birmingham and its neighbourhood in the year 1799, was, by more than one third, leſs than that made in the ſame place in the year 1792. Hence the origin of a conteſt between the manufacturers and the mine-maſters, which can be determined only by an act of parliament. The manufacturers require that the exportation of unmanufactured copper ſhould be prohibited by law, and that the importation of red copper ſhould be permitted. On the other hand, the mine-maſters and the Eaſt India company urge, that the injuries which they would ſuffer if the demands of the manufacturers were complied with, would greatly ſurpaſs any benefit which theſe could derive from it. This was in 1799. (The copper-trade has been ſince regulated by law.) As a third reaſon of the decline of the trade of Birmingham, I would mention, not that Birmingham has abſolutely loſt its reputation for excellence of manufactures; but that it indeed begins to be in danger of loſing that reputation. Avarice excites to artifices of diſhoneſt gain, the deceit of which cannot long eſcape detection, and cannot be detected without utterly diſcrediting the manufactures and trade of this place. Buttons, for inſtance, are ſold to foreigners, as truly plated and gilt, which are only of white and yellow mixed metals. On this ſubject I had much ſerious converſation with ſome of the moſt reſpectable manufacturers in the place, who are both much concerned, on account of the general injury to the reputation of Birmingham wares, and alarmed for the conſequences that may reſult to themſelves in their own particular buſineſs, from the diſingenuous practice of their fellow citizens in the foreign trade. And I thought it my duty to contribute to the undeceiving of foreigners, and to the warning of the knaviſhly inclined tradeſmen of this place, that their artifices are known, ſo that the honeſt manufacturer, and the general credit of the town, may not ſuffer on account of the artifices of a few.

With this view, I applied for more ſatisfactory information to Mr. Boulton. He declared his readineſs to ſatisfy my wiſhes. But as he was then on the point of ſetting out on a journey, and himſelf not at leiſure to favour me with long converſation, he referred me by an obliging letter to an eminent button-maker in Birmingham, who would, he aſſured me, acquaint me with every particular I might deſire to know. From that gentleman I had the following account of the ſtate of the button-manufacture in this place.

The manufacture of buttons is now one of the moſt conſiderable in Birmingham, and gives employment to many thouſands of men, women, and children. It has, however, been much reduced by the war. France was, before that, the principal market for buttons. Beſides, over the reſt of the continent of Europe, the uſual

ſales of this article have either ceaſed entirely, or elſe have been greatly diminiſhed. The only foreign orders are now from Germany and America. The finer ſorts of buttons, belonging chiefly to the purpoſes of elegant dreſs and luxury, have met, more than the coarſer ſorts, of this decline of ſale. That has been further occaſioned by the diſhoneſt artifices of certain manufacturers, who have put falſe marks on their goods. They mark, for inſtance, with the word *plated*, articles which are merely watered over with ſilver, and are not worth one-third of the value of genuine plated goods. Buttons of yellow metal, they have marked with the words *gilt*, *ſtrong gilt*, or *extra-ſtrong gilt*, although there were little or no gold upon them. This diſhoneſt and ruinous practice had grown ſo general, that it was at laſt found neceſſary to regulate the qualities and correſponding marks of buttons by law, under the ſanction of grievous penalties to be exacted from thoſe by whom the law ſhould be tranſgreſſed. But the conſequences have not hitherto been fully anſwerable to the good intention of the law; ſome are detected and fined, while many at the riſk of this, ſtill perſiſt in their former fraud. The Jews of Frankfort, who are the principal cuſtomers for theſe articles, prevail over the honour and the better judgment of the merchants and manufacturers with whom they deal. To enforce the law, indeed, an agreement has been recently entered into from which the beſt effects are expected, and by which it is ſettled that none of the ſubſcribers of this agreement ſhall have any future intercourſe in trade with any perſon who ſhall be detected acting in contravention to the law.

I ſhall explain the difference between the genuine and counterfeit *plated buttons*. In genuine plate, there is, above a plate of copper another of ſilver of ſufficient thickneſs and ſtrength to laſt for a conſiderable time. Buttons only *ſilvered over*, or *watered with ſilver*, exhibit but an exceedingly thin cruſt, which is removed by the ſolution of a ſaline matter, which holds the ſilvery particles upon the copper. In appearance, theſe ſilvered buttons differ little at the firſt from thoſe which are truly plated. But in a very ſhort time the ſilvering begins to diſappear. *Gilt buttons*, to render the gilding permanent, ſhould have a certain proportion of gold on the ſurface. In *double gilt buttons*, that proportion ſhould be fairly doubled. It ſhould be tripled on buttons which are deſcribed as *treble gilt*. Buttons thus prepared, are, by the act of parliament, required to be marked with the words, *gilt*, *double gilt*, and *treble gilt*. Of late years, a method has been found of giving with zink the very luſtre and colour of gilding to the ſurfaces of buttons, without other difference, than that in compariſon the zink appears ſomewhat paler, and that it ſoon loſes its luſtre and becomes blackiſh. To counterfeit with this ſubſtance without being liable to the penalties of the act, ſome manufacturers in uſing zink, mark on the buttons they are to ſell for double gilt, ſimply the words *gilt*, *gilt*, and on thoſe which are to be ſent abroad as treble gilt, the words *gilt*, *gilt*, *gilt*.

The beſt means to detect ſuch frauds, is by expoſing the buttons to the teſt of a proof-liquor. A Mr. Alſton in Birmingham has invented ſuch a liquor, and calls it his *liquid teſt*. A drop of this falling on any article, ſaid to be plated or gilt, diſcovers at once whether the plating or gilding be genuine. On gold or ſilver, the liquid has no effect. But it blackens in an inſtant zink, or any other baſe metal which may be uſed to counterfeit gold or ſilver. It may be uſed likewiſe as a teſt of the genuineneſs of gold or ſilver coin. Mr. Alſton gave me a phial of his liquid, which I have ſince preſented to the Patriotic Society of Hamburgh.

Another teſt is thus obtained. Mix a portion of aqua-fortis with common water. Diſſolve in theſe a ſuitable

portion of copper. To as much of this ſolution as fills a wine-glaſs, add two tea-ſpoonfuls of common ſalt. This mixture for a long time produces no effect on gilt buttons, which have the gold true and of ſufficient thickneſs. When the gilding is counterfeit, this teſt turns it inſtantly black. Very ſlight gilding too, is ſoon reduced by it to exhibit a fleckering of black and yellow.—Thus far my information from the gentleman to whom I was referred by Mr. Boulton. His name I forbear to mention.

The act of parliament, regulating the qualities and correſponding marks of plated and gilt buttons, was paſſed in the year 1796. It has been tranſlated and publiſhed in German. It gave occaſion to ſome curious publications on this ſubject; among which was a *letter from Job Nott to his couſin John Nott*. It was in that pamphlet repreſented, that the Jews were the firſt authors of the fraud; and that, when it was detected abroad, they then pretended to be in the utmoſt amazement, and would exclaim, as if with the greateſt indignation: 'Oh! dat be de Brummicham booton; dat be de great rogue dat do live at Brummicham, whoſe backſides be gold and whoſe face be braſs!'—This is alſo a true ſpecimen of the manner in which the German Jews ſpeak Engliſh.

Birmingham, with its ſuburbs, may be about three miles long, and two miles broad. Its outline is nearly an oval. The ſituation has been remarked by Dr. Price to be one of the moſt healthful in England. The atmoſphere is, however, a good deal contaminated by metallic effluvia and pitcoal ſmoke. Here are workers in braſs whoſe hair is coloured over green from the nature of their employment. Yet the inhabitants in general live to a good old age; and inſtances are not wanting of perſons whoſe lives have exceeded a hundred years. The houſes have in general the appearance of being new. The ſtreets run up and down hill. They are ſorry enough, paved with ſmall ſtones, and inconvenient for a perſon to walk upon. Moſt of the ſtreets have at one end or the other a proſpect into the country. This town, large as it is, has no regular market.

St. Martin's church is an old edifice. St. Philip's, or the New church, was built ſeventy years ſince. Its ſtructure is handſome, and its ſituation pleaſant. It poſſeſſes a parochial library, containing a good collection of theological books. There is in the church no burial-place.—St. Paul's is the principal chapel. A piece of beautiful painting on glaſs, the work of Mr. Egginton, a man very famous in this branch of art, is here to be ſeen.

The free ſchool is a very decent building. Its endowments are ſo ample, that eight other inferior ſchools are in different parts of the town ſupported out of them. They afford alſo exhibitions to ſeven ſtudents, who are ſent to Oxford.—The charity or blue-coat ſchool was erected in the year 1724. It is ſupported by charitable contributions, and educates at preſent 150 boys and forty girls. At the age of twelve or fourteen years, theſe children are put out to earn their own ſubſiſtence by their labour.—The diſſenters have likewiſe a charity ſchool, which has been put upon new management ſince the year 1791, and now maintains about forty boys, and as many girls. The workhouſe was erected in the year 1733. A left wing was in 1766 added to it, for an Infirmary. In 1779, a right wing was alſo built, as a place in which work might be performed. The general hoſpital was built in 1766; and was in 1791 enlarged, by the addition of two wings. The ſubſcription for the ſupport and treatment of the patients in it was in 1790, about 1532l ſterling. That of 1798, was leſs by one-third. In the laſt mentioned year, the number of houſe-patients was 834; the out-patients were then 340.

A theatre was built in King's ſtreet, in the year 1765. It was enlarged

and ornamented in 1774. Another theatre was that ſame year erected in New-ſtreet. The former being no longer wanted for dramatic entertainments, is now a methodiſt chapel. The theatre in New-ſtreet, was burnt down in 1791. Another theatre has been ſince reared on the ſame ſpot at the expence of 14,000l ſterling.

A public library was opened at Birmingham, in the year 1779. Another was alſo opened in 1796. Both were begun and are ſupported upon ſubſcriptions. The former contains full nine thouſand volumes.

The medical waters of Lady-well are in conſiderable repute in Birmingham. Lady-well is ſituate at a remote corner of the town. There are ſeven different wells, of which one is ſupplied with hot water. Another is a large bath for immerſion and ſwimming. The dwelling-houſe of the keeper of theſe baths, who is at the ſame time a bruſh-maker, is one of the pooreſt huts that can be ſeen. There is a ſmall printed deſcription of theſe baths. They were erected at an expence of two thouſand pounds ſterling.

Within a mile of Birmingham, is a good chalybeate ſpring. But it is quite neglected, for the good folks of this place, are a great deal fonder of beer than of chalybeate waters.

The inhabitants of Birmingham are fonder of aſſociation in clubs, than thoſe of almoſt any other place I know. Each club is diſtinguiſhed by ſome peculiarity of name and character. One, for example, is named the *rent-club*; and its members contribute a ſmall ſum weekly, to be expended in two half-yearly feaſts. The members of the *clock-club* make weekly contributions, till the ſum riſes for each to four pounds ſterling, the price of a clock or watch. They then divide their capital and begin anew. The *breeches-club* put together weekly contributions, till they have enough to buy a pair of new breeches for every member. Of the ſame character is the *clothes-club*. There is a *building-club*, the members of which join their contributions, till they have enough to build or purchaſe a new houſe. The deſign of the *book-club*, whoſe contributions are laid out in books for the uſe of the members, might be imitated with advantage in Germany. A good deal of beer is every week drunk at the meetings of the clubs. It is eaſy to get together a club. The maſter of an alehouſe and ſome artiſan who wiſhes to diſpoſe of his goods, lay their heads together, ſtrike out a name for a club, advertiſe it, and by this means collect a ſufficient number of members. Many of them are clubs for providing funds, out of which their members may obtain relief in ſickneſs and extreme indigence. In the year 1791, a *Humane Society* was here inſtituted, with the benevolent deſign of reſtoring to life perſons who had been drowned. It ſtill ſubſiſts.

The alehouſe is a principal ſcene of the recreations of the inhabitants of this place. But in fine weather, they rather walk out to *public gardens* and *bowling-greens*. Many are fond to go a fiſhing; though they come uſually back without having taken any fiſh. A mile and a half from Birmingham, are gardens imitating thoſe of Vauxhall at London, and of the ſame name. Excurſions are often made likewiſe to the beautiful parks of Hagley at twelve miles, Enville at eighteen miles, and the Leaſowes at ſix miles diſtance from Birmingham. Of theſe, here is a good deſcription to be bought, which was printed in the year 1789. In the environs of the town are many pretty villas, whoſe inhabitants do not, like the merchants of Hamburgh, keep houſes in both town and country, but reſide always in the country, and have only their warehouſes, counting-rooms, or ſhops in town. In winter are balls, concerts, aſſemblies, &c. Hackney-coaches are not numerous here. It was in the year 1775, that they came firſt in uſe.

A difference is made in Birmingham between the merchant and the factor. The former is in the trade

with foreign countries; the latter confines his tranſactions to England. It is ſeldom that a merchant acts at the ſame time as a factor, or that a manufacturer does buſineſs as a merchant. The number of merchants and factors in this town is about 140; the button-makers 150, the buckle-makers 2:, braziers and kettle-makers 75, the bellows-makers 14, bruſh-makers 14, candleſticks-makers 10, platers 90 ſpoon makers 8, ſpectacle-makers 6, ſmiths 34, watch and clock-makers 150, candle-ſnuffer-makers 8, ſpur-makers , turners 16, thimble-makers 6, lockſmiths 13, jewellers 20, iron founders 7, japanners 20, ſword-cutlers and manufacturers of other arms 30, file-cutters 10, gimlet and wimble-makers 10, knife-cutlers 6, beſide a number of artiſans in leſs conſiderable branches of the hardware manufacture. All theſe are maſter-artiſans, poſſeſſing eſtabliſhments of manufacture, and employing each a greater or a ſmaller number of hands.

The moſt remarkable eſtabliſhment for manufacture in the vicinity of Birmingham, is that at Soho, in the county of Stafford, nearly two miles from this town.—[*For an account of which, ſee our next article.*]

An ACCOUNT *of the* SOHO MANUFACTORY *in* Staffordſhire.

[From Shaw's Hiſtory of Staffordſhire, vol. 2.]

SOHO is the name of a hill in the county of Stafford, about two miles from Birmingham; which, a very few years ago, was a barren heath, on the bleak ſummit of which ſtood a naked hut, the habitation of a warrener.

The transformation of this place is a recent monument of the effects of trade on population. A beautiful garden, with wood, lawn and water, now covers one ſide of this hill; five ſpacious ſquares of building, erected on the other ſide, ſupply workſhops or houſes for about ſix hundred people. The extenſive pool at the approach to this building is conveyed to a large water wheel in one of the courts, and communicates motion to a prodigious number of different tools. And the mechanic inventions for this purpoſe are ſuperior in multitude, variety, and ſimplicity, to thoſe of any manufactory in the known world.

Toys, and utenſils of various kinds, in gold, ſilver, ſteel, copper, tortoiſe-ſhell, enamels, and many vitreous and metallic compoſitions, with gilded, plated, and inlaid works, are wrought up to the higheſt elegance of taſte, and perfection of execution, in this place.

Mr. Boulton, who has eſtabliſhed this great work, has joined taſte and philoſophy with manufacture and commerce; and, from the various branches of chymiſtry, and the numerous mechanic arts he employs, and his extenſive correſpondence to every corner of the world, is furniſhed with the higheſt entertainment as well as the moſt lucrative employment.

About the year 1745, Mr. Boulton, then of Birmingham, invented, and afterward brought to great perfection, the inlaid ſteel buckles, buttons, watch chains, &c. which Mr. Moore mentions in one of his papers in the *World*, as becoming faſhionable in this country; while they were repurchaſed from France, under the idea of their being the production of that kingdom.

In the year 1757, John Wyrley, of Hampſtead, eſq. lord of the manor of Handſworth, granted a leaſe to meſſrs. Edward Ruſton and Eaves, of theſe tracts of common; viz. Handſworth heath, Monerbank hill, Crabtree bank warrens, for ninety-nine years, with certain incloſed lands, with liberty to make ſome additions to the ſame, and to make a cut for the turning of Hockley brook to make a pool, with powers

to build a water mill. In conſeqence of which a ſmall houſe and feeble mill were erected, for the purpoſe of rolling metal. On Lady-day 1762, Mr. Boulton purchaſed the aforeſaid leaſe with all the premiſes and appurtenances, to apply the ſame to ſuch branches of the manufactory eſtabliſhed at Birmingham as would tend to diminiſh expence and labour.

In order to proſecute his deſigns and improvements, he ſoon after enlarged and rebuilt thoſe premiſes, and then tranſplanted the whole of his manufactory from Birmingham to Soho; and though he had made many conſiderable additions to theſe buidings, he found them not ſufficient for his great deſigns: he therefore, in 1764, laid the foundation of the preſent ſuperb manufactory, which was finiſhed within the following year, at the expence of 9000l. From that period he began to turn his attention to the different branches of manufactory; and, in conjunction with Mr. Fothergill, then his partner, eſtabliſhed a mercantile correſpondence throughout Europe; by which means the produce of their various articles was greatly extended, and the manufacturer, by becoming his own merchant, eventually enjoyed a double profit. Impelled by an ardent attachment to the arts, and by the patriotic ambition of bringing his favourite Soho to the higheſt degree of perfection, the ingenious proprietor ſoon eſtabliſhed a ſeminary of artiſts for drawing and modelling; and men of genius were now ſought for and liberally patroniſed, which ſhortly led to a ſucceſsful imitation of the Or Molu. Theſe metallic ornaments, conſiſting of vaſes, tripods, candelabras, &c. by the ſuperior ſkill and taſte beſtowed upon them here, ſoon found their way, not only to the admiration of his majeſty, and to the chimney-pieces and cabinets, &c. of the nobility and curious of this kingdom; but likewiſe to France, and almoſt to every part of Europe. From this elegant branch of the buſineſs the ſuperior ſkill of Mr. Boulton led his artiſts, by a natural and eaſy tranſition, to that of the wrought ſilver: upon which he ſoon found the neceſſity of applying to parliament for, and eſtabliſhing in 1773, an aſſay office at Birmingham. About this time that ingenious art of copying pictures in oil colours by a mechanical proceſs, was invented at Soho; and, under the patronage of the above proprietor, was brought to ſuch a degree of perfection as to be taken for originals by the moſt experienced connoiſſeurs. This extraordinary piece of art was principally conducted by the ingenious Mr. E. Egington, which led him to that of painting upon glaſs, now carried on at his neighbouring manufactory.

Mr. Boulton, finding from experience that the ſtream of water which had induced him to build a mill, and tranſplant his manufactory to Soho, was inſufficient for its purpoſes, applied horſes, in conjunction with his water-mill; but finding that both troubleſome, irregular, and expenſive, he made a ſteam engine on Savery's plan, with the intention of returning and raiſing the water twenty-four feet high; but this proving unſatisfactory to him, he ſoon after formed an acquaintance with his preſent partner and friend, Mr. James Watt, of Glaſgow, who in 1765, had invented ſeveral valuable improvements upon the ſteam-engine, which, in fact, made it a new machine.

The application of this improved ſteam-engine at Soho to raiſe and return the water, extended the powers of the water-mill; which induced Mr. Boulton to rebuild it a ſecond time upon a much larger ſcale; and ſeveral engines were afterward erected at Soho for other purpoſes, by which the manufactory was greaty extended, the ſource of mechanical power being thus unlimited.

Among the various applications of the ſteam-engine, that of coining ſeems to be of conſiderable importance, as by its powers all the operations are concentered on the ſame ſpot; ſuch as rolling the cakes of copper hot

into ſheets; 2dly, fine-rolling the ſame cold in ſteel poliſhed rollers; 3dly, cutting out the blank pieces of coin, which is done with greater eaſe and rapidity by girls than could poſſibly be done by ſtrong men; 4thly, the ſteam-engine alſo performs other operations, ſuch as ſhaking the coin in bags; and, 5thly, it works a number of coining machines, with greater rapidity and exactneſs, by a few boys of twelve or fourteen years of age, than could be done by a great number of ſtrong men, without endangering their fingers, as the machine itſelf lays the blanks upon the die perfectly concentral with it, and when ſtruck diſplaces one piece and replaces another.

The coining mill, which was erected in 1788, and has ſince been greatly improved, is adapted to work eight machines, and each is capable of ſtriking from ſeventy to eighty-four pieces of money per minute, the ſize of a guinea, which is equal to between 30,000 and 40,000 per hour; and at the ſame blow which ſtrikes the two faces, the edge of the piece is alſo ſtruck, either plain or with an inſcription upon it, and thus every piece becomes perfectly round, and of equal diameter; which is not the caſe with any other national money ever put into circulation.

Such a coining mill, erected in the national mint, would, in caſes of emergency, be able to coin all the bullion in the Bank of England at a ſhort notice, without the neceſſity of putting dollars, or other foreign coin, into circulation; and by erecting double the number of preſſes a double quantity may be coined.

It is worthy obſervation, that the ground of the ſilver money coined by this machine has a much finer and blacker poliſh than the money coined by the common apparatus.

In conſequence of Mr. Boulton's money being perfectly round, and of equal diameter, he propoſed the following coincidence between money, weights, and meaſures, in the copper coin, part of which he has lately executed for the Britiſh government, viz. a two penny-piece, to weigh 2 oz. and fifteen of them to meaſure two feet, when laid flat in a ſtraight line; one-penny piece to weigh 1 oz. and ſeventeen of them to meaſure two feet; halfpenny to weigh ½ oz. and ten of them to meaſure one foot; a farthing to weigh ¼ oz. and twelve to meaſure one foot. This plan of coincidence was prevented from being put into execution by the ſudden advance of the price of copper.

In the year 1788, Mr. Boulton ſtruck a piece of gold the ſize of a guinea, as a pattern (ſimilar to thoſe in copper); the letters were indented inſtead of in relief; and the head, and other devices (although in relief) were protected from wear by a broad flat border; and, from the perfect rotundity of ſhape, &c. with the aid of a ſteel gage; it may, with great eaſe and certainty, by aſcertaining its ſpecific gravity, be diſtinguiſhed from any baſe metal —Previous to Mr. Boulton's engagement to ſupply government with copper pence, in order to bring his apparatus to the greateſt perfection, he exerciſed it in coining ſilver money for Sierra Leone and the African company, and copper for the Eaſt India company and Bermudas.—Various beautiful medals of our celebrated naval and other officers, &c. have likewiſe been ſtruck here from time to time by Mr. Boulton, for the purpoſe of employing and encouraging ingenious artiſts to revive that branch of ſculpture, which had been upon the decline in this kingdom ſince the death of Symons in the reign of Charles II.

In order to obtain the deſired degree of perfection in the manufactory of ſteam-engines, meſſrs Boulton and Watt found it neceſſary to erect and eſtabliſh an iron-foundery for that purpoſe; and they have accordingly, in partnerſhip with their ſons (to which activity, genius, and judgment, it muſt be attributed, that this great work was begun and finiſhed in the courſe of three winter months) erect-

ed, at a convenient diſtance and contiguous to the ſame ſtream, at Smethwick, a great and complete manufactory and foundery, into which a branch from the Birmingham canal enters; and thereby the coals, pig-iron, bricks, ſand, &c. are brought, and their engines, or other heavy goods, are tranſported in boats to every part of the kingdom, there being a wet dock within their walls for four boats to lie.

The plan of this work being well digeſted and ſettled previous to laying the firſt ſtone, the whole is thereby rendered more complete than ſuch works as generally ariſe gradually from diſjointed ideas. And, from the great experience of the proprietors, they have applied the power of ſteam to the boring of cylinders, pumps, &c. to drilling, to turning, to blowing their melting furnaces, and whatever tends to abridge human labour, and obtain accuracy; for, by a ſuperiority of all their tools, they are enabled to attain expedition and perfection in a higher degree than heretofore.

In a national view, Mr. Boulton's undertakings are highly valuable and important. By collecting around him artiſts of various deſcriptions, rival talents have been called forth, and by ſucceſſive competition have been multiplied to an extent highly beneficial to the public. A barren heath has been covered with plenty and population; and theſe works, which in their infancy were little known and attended to, now cover ſeveral acres, give employment to more than ſix hundred perſons, and are ſaid to be the firſt of their kind in Europe.

ON THE ANATOMY OF VEGETABLES.

Continued from Page 37.

Of the Tubular Tiſſue.

THERE are two kinds of tubes, the great and the ſmall.

Art. I. *Of the large tubes.*—The large tubes during the firſt period of their formation are not, as might be ſuppoſed, membranaceous canals ſeparate and diſtinct from the tiſſue; and they exiſt only becauſe there is a lacuna in the membranes. Such is the extreme ſimplicity of the organization of vegetables, that all the difference obſerved in them is merely confined to ſome modifications in the cellular tiſſue. But the ſides of theſe large tubes, being continually moiſtened by the fluids imbibed by the plant, gradually aſſume more conſiſtence, and ſeparate from the reſt of the tiſſue when their ſolidity ſurpaſſes that of the ſurrounding membranes. I could never obſerve large tubes in muſhrooms, lichens and fuci, even when I employed a microſcope; but it is ſufficient to have good ſight to be able to diſtinguiſh the aperture of theſe canals on the tranſverſal ſection of the ſtems, the branches, and roots, of ſeveral monocotyledons and dicotyledons. In the former they are always found in the centre of the ligneous filaments, and ſometimes they compoſe the major part; in the ſecond they are diſtributed often, as it were, at random in the wood; ſometimes alſo they formed groops placed very regularly at certain diſtances, or they are ranged in concentric zones. They are exceedingly numerous, in particular around the medullary canal. They are found alſo in the bark. If their progreſs be followed they will be ſeen to have their origin in the root, to enter the trunk, and to riſe parallel to each other: then to unite, to ſeparate and deviate from their vertical direction, to penetrate the bud which is formed at the ſurface of the bark; to lengthen with it, and to diſtribute themſelves throughout all its ramifications, to paſs from the branch into the ligneous filaments the bundle of which compoſes the petiole, and to divide themſelves among the large fibres of

the leaves as the arteries and veins diſtribute themſelves in the human body. They may be obſerved alſo in the fibres of the perianthes, the filaments of ſome ſtamina, the peſtils, and the ligneous filaments which traverſe the pulp of fruits. Scarcely is the embroy formed when theſe tubes are obſerved. In this infancy of the vegetable they are not concealed by the wood, which does not yet exiſt: the ſubſtance deſtined to produce it is then in a ſtate of fluidity, which permits the obſerver to examine the parts which it covers. It is not yet the proper place for ſpeaking of the vegetable chyle produced by the fluids aſſimilated in the veſſels of the plant, I ſhall recur to that ſubject hereafter. The large tubes form ſometimes medullary radii, as I have obſerved in the equiſetum or horſe-tail; but, in my opinion, this caſe is rare.

The large tubes are of four kinds: ſimple tubes, porous tubes, falſe tracheæ, and tracheæ. Theſe are modifications of the ſame organ.

1ſt, *Simple tubes.*—The ſides of theſe tubes are perfectly whole, neither pores nor fiſſures are obſerved in them: they generally contain reſinous or oily juices, known under the denomination of *proper juices.* Theſe tubes are very remarkable in green trees, in euphorbia, periploca, and, in general, in all plants the juices of which are thick. They are more numerous and more viſible in the bark than in any other part.

2d. *Porous tubes.*—The ſides of theſe tubes are perforated with ſmall pores ſimilar to thoſe mentioned in the article on the cellular teſſue, with this difference, that they are much more numerous, and that, inſtead of being diſſeminated by chance, and without order, as is often the caſe in the cells, they are diſtributed in regular and parallel ſeries around the tubes. Theſe tubes do not appear to be ſo peculiarly deſtined as the preceding to contain reſinous or oily juices. They are very numerous in hard wood, ſuch as the oak.

3d, *The falſe tracheæ.*—Theſe tubes are interſected in a tranſverſal direction with parallel ſlits, which from their appearance might induce us to believe that they are formed of rings placed one above the other, or of filaments twiſted in a ſpiral form; but they cannot be unrolled, or ſeparated into diſtinct rings; and, beſides, with a little attention, one may diſcover the continuity of the membrane, and conſequently the place where the ſlits end. Theſe, then, are porous tubes, but their pores are much larger than thoſe of the preceding. I muſt even obſerve, that the edge of the ſlits is furniſhed with a roll ſimilar to that which ſurrounds the ſmall pores. Theſe tubes are deſtined for the ſame purpoſes as the porous tubes; but in general they are found in thoſe kinds of woods which are leſs hard and compact, and even in herbaceous plants; I have obſerved them in a great number of the monocotyledons. The centre of the lycopodia preſents a thick cylinder compoſed, in a great meaſure, of veſſels of this nature. Ferns contain alſo a great many in their ligneous filaments. Dicotyledons are likewiſe provided with them. They are exceedingly numerous in the vine, the wood of which is ſoft and porous.

4th, *The tracheæ.*—Want of experience has aſſigned to theſe tubes, which have not been ſufficiently obſerved, a denomination conſecrated by cuſtom. The tracheæ of plants have a reſemblance in their form to the tracheæ of inſects, and it has thence been concluded, on too ſlight grounds, that theſe tracheæ in the former as well as in the latter muſt be the organs of reſpiration. The vegetable tracheæ is a tube formed of a filament twiſted into a ſpiral form from right to left. This filament is opaque, brilliant, argenteous, and thick. Its tranſverſal ſection preſented to me ſometimes a flat plate or an ellipſis, and ſometimes even two filaments united by an intermediate membrane; but I never could

obſerve the aperture of a tube, as ſeveral authors have aſſerted. The ſurface is ſometimes ſmooth, ſometimes unequal, ſometimes porous. The ſpirals of the tracheæ are often ſo cloſe, that when their arrangement is not diſturbed, on breaking or cutting, without precaution, the parts which conceal them, they appear to be continued tubes ſlightly ſtriated. Malphigi and Reichel ſay that choked parts have been remarked in the length of the tracheæ; and at firſt I believed that I obſerved the ſame, but I have ſince found that this was merely an optical illuſion. Theſe tubes exiſt in great numbers in the herbaceous monocotyledons and dicotyledons, but eſpecially in the aquatic kinds, the tiſſue of which is weaker: they occupy the centre of the ligneous filaments in the monocotyledons; in trees with two cotyledons they are ſeen around the pith: in theſe they are often mixed, and confounded with the falſe tracheæ. I never ſaw them in the hard parts of vegetables, unleſs theſe parts had long been in a ſtate of ſofineſs, which permitted the tracheæ to expand: this is what takes place in branches and twigs from which the pith has diſappeared. Theſe tubes have formed themſelves when the medullary ſubſtance exiſted. The tracheæ are not found in the length of the bark; they penetrate into the petioles and leaves in the ſame manner as the falſe tracheæ; they every where act the ſame part as the latter, and do not contain thick juices but in plants where they are very abundant, ſome as of the lily kind. It is well known that, to ſee theſe organs with the naked eye, it is neceſſary to take a young, green, and ſoft branch, to twiſt and break it without violence, that the tracheæ may be unrolled without rupture: if the two parts of the branch which have been divided be then oppoſed to the light, one can diſtinguiſh the half-unrolled filaments which proceed from the one part to the other, and the ſpirals are cloſe or at a diſtance, according as the parts are brought near to, or removed from, each other. They unroll themſelves or contract in the ſame manner in leaves which have been torn. The leaves, however, of the *butomus umbellatus* exhibit a contrary phenomenon; the tracheæ, which in this plant are exceedingly numerous, when once unſolled no longer contract themſelves.

Let us now return to the large tubes in general. The diviſion into ſimple tubes, porous tubes, falſe tracheæ, and tracheæ, is not rigorous. In eſtabliſhing it, I do not pretend to aſſign immutable laws of nature; I have had occaſion to obſerve that it often deviates from them. Thus the *butomus umbellatus* exhibits in the ſame tube the pores of the porous tubes, the ſlits of the falſe tracheæ, and the ſpirals of the true tracheæ; ſo that one tube comprehends three of the modifications I have deſcribed. Theſe tubes I call the mixt. Other vegetables exhibit ſomething analogous or in ſimilar ſituations, there are found in them one of the four varieties of the large tubes. It is not uncommon to ſee all theſe tubes cloſely united the one to the other, and forming only one tiſſue. In a word, it may be conjectured, with ſome appearance of reaſon, that in many caſes the tracheæ unroll themſelves only becauſe the membranes which unite their ſpirals are torn. Let us conclude then that theſe differences, which on the firſt view appear of ſo much importance, are only ſlight ſhades in the vegetable economy. But the large tubes, conſidered in a more general manner, preſent themſelves to the mind as the creative organs; their numerous ramifications diſtributed throughout all the parts of the vegetable carry thither the vivifying juices; by theſe the ſtem acquires more vigour, the bud is produced, pierces the bark, and lengthens under the form of a branch; the leaf expands, the flower blows, and the fruit ſwells up and ripens, while the embryo concealed in its boſom receives its firſt nutritive juices.

Art. II. *Of the ſmall Tubes.* Theſe

are compoſed of cells united to each other like thoſe which compoſe the cellular tiſſue; but in the cellular tiſſue the diameter of the cells is nearly equal in every direction: while in the former the cells are much elongated, and form real tubes, the extremities of which are ſhut: the ſides alſo are leſs tranſparent, and the membranes of which they are formed have more conſiſtence: they are often perforated with a great number of pores. This tiſſue is thick, ſolid, and tenacious. It is generally difficult to cut it through; but it preſents much leſs reſiſtance lengthwiſe, and often ſeparates eaſily into threads of greater or leſs delicacy, and which very improperly have been called fibres. The ſolidity of the vegetable depends in particular on the quantity and denſity of this tiſſue: it contains, according to the ſpecies in which it is found, ſometimes thick and coloured juices, but ſometimes, and more commonly, limpid and colourleſs juices. In the fir it is impregnated with a reſinous liquor; in the vine, eſpecially at the time of the ſap, it abounds with an aqueous fluid.

The embryo, ſtill incloſed in its teguments, has few or no ſmall tubes: all its parts are ſoft or almoſt mucilaginous. This tiſſue is never found but in the expanded plant. It is obſerved in the centre or at the circumference of the ramifications of certain ramified lichens, and in the ſtems of moſs: in monocotyledons, this tiſſue diſtributed around the large tubes forms the ligneous filaments; in dicotyledons, placed around the pith, and the large ſurrounding tubes, it forms the ligneous ſtrata. The ſmall and large tubes are generally united: the exiſtence of the former depends on the preſence of the latter. The bond which connects them is nothing elſe than that which unites the effect to the cauſe. Large tubes, however, are ſometimes found without the ſmall, and the ſmall without the large; but it is to be recollected that the latter are the creative organ, and conſequently their exiſtence is independent of that of the others. So much for the firſt caſe. And it muſt be conſidered that there is an epoch for many vegetables at which the large tubes are filled up with the tiſſue to which they gave birth. So much for the ſecond caſe.

The prominent parts of the grooves and ſtriæ which cover the ſurface of the vegetables are bundles of ſmall tubes. This tiſſue is obſerved alſo in the moſt delicate ribs of the leaves and petals: it penetrates the ſtamina and piſtils, and reaches to the extremity of the ſtigmata: but in theſe delicate organs it loſes its rigidity, and is nothing but cellular tiſſue very much elongated.

Of Lacunæ.

Nature, which effects expanſion without violence, and which conducts organized beings, by inſenſible gradations, from non-exiſtence to life, and from life to death, ſeems here to deviate from her uſual progreſs: ſhe deſtroys to create, and from the annihilation of organs gives birth to a new organic ſyſtem. Lacunæ are regular and ſymetric vacuities formed in the interior of vegetables by the laceration of their membranes.

Lacunæ, in general, exiſt only in plants, the tiſſue of which is ſoft. They are very numerous in moſt of the aquatic herbs. They are, however, found ſometimes in vigorous trees, the wood of which is very hard; but in all caſes they are formed only by the deſtruction of the cellular tiſſue, which is the weakeſt part of the membranous tiſſue. If lacunæ occur more frequently in the monocotyledons, it is becauſe theſe vegetables in general have leſs vigour, and an organization leſs perfect; or if I may venture to ſay, leſs vegetative power. A phenomenon which deſerves the attention of phyſiologiſts is, that theſe lacerations inſtead of hurting the vegetable ſerve only to increaſe its ſtrength by concen-

trating it more. Plants, the texture of which is flaccid, and thoſe in particular immerſed in water, receive juices in abundance; but they cannot aſſimilate them, becauſe the organs are not ſufficiently vigorous in proportion to the volume of theſe plants, which have more ſize than real ſtrength. But if by internal rupture the organs which have become uſeleſs are deſtroyed, and the uſeful organs are retained; in a word, if one part of the organization is ſacrificed to the other, the part which maintains itſelf receiving the whole nutritive ſubſtance will acquire more ſtrength, and the vegetable will ſtill grow with new vigour; for its ſtrength will not be diminiſhed, and its impediments will be leſs.

No lacunæ are obſerved in the embryo, becauſe its lacerations are a real diſorganization, which cannot take place in beings that begin to live. They are formed therefore, only in the courſe of time. They ſhow themſelves in the petioles of fern, in the ſtems of the potamogetons, and in a multitude of other vegetables like longitudinal tubes interſperſed throughout the cellular tiſſue. In the equiſeta they affect a diſpoſition exceedingly regular; one greater than the reſt forms a tube in the centre of the ſtem; around this tube there are other very ſmall lacunæ arranged circularly, and ſome larger and cloſer to the circumference are diſpoſed in alternate order with them. The lacunæ of the leaves of the monocotyledons are interſected by frequent partitions, which are only the cellular tiſſue collected at certain diſtances, and which cloſes the tubes by membranous diaphragms. This organization, or rather diſorganization, appears through the tranſparent tiſſue of the *typha*, and a multitude of other monocotyledons with ſword-formed leaves. The ſame phenomenon may be obſerved in the tiſſue of the ſheaths of which the ſtem of the banana-tree is compoſed.

The *roſeau* has longitudinal lacunæ, and alſo tranſverſed apertures in the thickneſs of the bark: it does not appear that the latter kind of lacuna occurs often in vegetables.

One might ſuſpect that the large tubes of plants always begin by being lacunæ, and that the internal vacuities, where a new tiſſue, which increaſes both the volume and denſity of the vegetable, is developed, are only lacunæ alſo.

Of the Glands.

Whether plants have glands analagous to thoſe of animals; that is to ſay, organs proper for giving to the fluids the qualities neceſſary for the development and preſervation of the being by making them undergo new combinations, and by ſeparating from them the uſeleſs or prejudicial qualities, is a queſtion not eaſy to be determined. In ſo delicate a ſubject, facts and reaſoning are equally obſcure; however, it appears to me beyond a doubt that we do not catch with our beſt microſcopes but the coarſe part of the vegetable organization. I cannot conceive that the tranſfuſion of the fluids of one cell into another is ſufficient to modify theſe fluids ſo far as to change them into organized matter, and to render them ſuſceptible of giving a new increaſe and new vigour to the plant. I cannot conceive either that the common laws of chemiſtry could alone affect this phænomenon, becauſe, in either hypotheſis, nothing could prevent labour or chance from unveiling to man the ſecret of nature: but this conſequence is repugnant to reaſon. It appears, then, to me more judicious to admit ſecretory organs in which the fluids are aſſimilated. It muſt, indeed, be ſuppoſed that the membranes are not impenetrable to the fluids, ſince they dilate, unfold themſelves, and change their nature; but they muſt neceſſarily modify the fluids, ſince the latter, by penetrating them, become capable of increaſing the membranous tiſſue in all its dimenſions: it is in the membranes,

then, that we muſt ſearch for the vegetable glands. It might be ſuppoſed, with ſome appearance of truth, that the opaque and irregular rolls with which the pores and apertures of the large tubes are bordered are glandulous bodies. The filaments of the tracheæ, the thickneſs of which greatly ſurpaſſes that of the membranes, ſeem alſo to diſcharge the ſame functions; and what gives to theſe probabilities more weight is, the conſideration that the mucilage, which is transformed into organized tiſſue, is always accumulated around the ſmall and large tubes, which are all covered with theſe opaque bodies.

[To be continued.]

ACCOUNT *of a* MUMMY *found in* AUVERGNE *in* FRANCE, *in the Year* 1756, *and in a State of Preſervation greatly ſuperior to that of the Mummies of* EGYPT: *By Mr.* LE GRAND.

ON the 4th day of February 1756, two peaſants of the village of Martres d'Artier, were at work together, digging in a field, when one of them preſſing his ſpade to the depth of a foot in the earth, found it to ſtrike upon a ſtone. In any other part of Auvergne, this incident would have been ſo little extraordinary that the man would have, without concern about the ſtone, proceeded in his work. But in the vicinity of Martres, ſtones are extremely ſcarce; and the peaſant wiſhed to raiſe that one out of the ground, that he might at a future time put it to uſe. After removing a part of the earth, he perceived it to be a ſtone on which was a lid having two inclining ſides, with a flat upper ſurface, which was eight inches in breadth. He and his companion ſuppoſing they had found a treaſure, ſet to work with the utmoſt earneſtneſs to uncover the whole. By hard labour for two days and a night, they effected their purpoſe. The ſtone coffin was ſeven feet long, three feet three inches in height, and thirty-two inches in breadth. They with ſome difficulty broke it open at one ſide. Within it was a leaden coffin, which they ſuppoſing to be filled with treaſure, carried ſecretly to one of their houſes by night. After it had been there twenty-four hours, they reſtored it to the ſituation in which it had been found by them, and gave public notice of their diſcovery. The curious ſoon reſorted to ſee it from the diſtance of ſome leagues all around.

In the ſtone cheſt or coffin, there appeared nothing very remarkable. It was a grey porous ſtone, very coarſely hewn, bearing no inſcription, and without any figures in ornamental ſculpture. The leaden coffin conſiſted, like that in which it was incloſed, of two diſtinct parts fitted together. There were in it two apertures, one at the mouth, the other oppoſite to the ſtomach of the corpſe within.

It was the corpſe of a boy that had died at the age of ten or twelve years. It remained in a freſhneſs of preſervation, and a completeneſs of all the parts which ſeemed truly wonderful.

In all ages, and among all nations, fond regret has excited mankind to try various arts for the preſervation of the remains of the dead. The Egyptians, the Peruvians, the Guanches, and the Jews, are known to have reſpectively practiſed the art of embalming. At Memphis, where this art was carried to high improvement, it remained ſtill very diſtant from its true perfection. It there conſiſted in drying up the liquid parts of the body with a cauſtic liquid. The embalmers making an inciſion in the ſide of the body, firſt took out the viſcera. They then penetrated into the cranium, and took out the brains by the noſtrils. Next they filled with balſamic and bituminous matters, the cavities of the breaſt, head, and belly. They then waſhed the body, and ſalted it with natrum. This alkaline ſalt being prone to combination with the fat, the oily parts

and the lymphatic fluids decompoſed thoſe matters, brought them into chymical union with itſelf, and acted on the fleſh juſt as the operation of tanning acts upon hides. But as the natrum had alſo the property of attracting moiſture from the atmoſphere, it tended by this, after a time, to haſten the putrefaction which it was employed to prevent. To obviate this effect, it was in its turn waſhed off; and the body was then dried in the open air, wrapped in ſwathing bands, and covered over with an embalming matter, which preſerved it from ſuffering by the action of the atmoſphere. The arms were then laid acroſs each other on the breaſt, the legs were preſſed together, and the whole was bound up in a ſecond covering of ſwathing bands. This was the Egyptian proceſs. But a mummy, as may be eaſily perceived, was when thus prepared nothing more than a ſkeleton, under the cover of a black tanned hide. Such remains preſent at this day nothing but a ſight of horror, the moſt hideous image poſſible of death itſelf.

But the mummy of Auvergne had been preſerved by a far ſuperior method of embalming. It ſeemed as if rather in a deep ſleep, with all the freſhneſs and the graces of life, than as if it had been bereft of thoſe by the hand of death. The exact nature of the matter with which it was embalmed I have not been able to learn. But it had neither bitterneſs nor acridity; it was a mixture of aromatous matter, ſo perfect, that no one of the ingredients could be diſtinguiſhed in it from the reſt; it was ſo active and penetrating, that the hands, after once touching it, continued, even though waſhed with hot water or vinegar, to ſmell of it for ſeveral days after. The ſtone coffin, after ſtanding above a month open, and in the air, ſtill ſmelled of it ſtrongly. In ſome particulars, the proceſs by which this mummy was preſerved ſeems to have had a reſemblance to the Egyptian proceſs. A layer of the embalming matter was ſpread over the whole ſurface of the body, to which it had given a yellowiſh teint. Over this was a very thin covering of tow. Upon theſe, had ſwathing bands been rolled. The feet and hands were incloſed in ſmall bags of the aromatous matter. And on the head was a cover, which was thought to be a ſkin prepared for that uſe. In this ſtate the mummy was juſt like a child in ſwaddling clothes. For its outer coverings it had two winding ſheets; the one of very fine cloth, the other of coarſe cloth, much like matting. All theſe covers were impregnated with the aromatic ſubſtance, which had probably been poured in at the two holes after the body was depoſited in the coffin.

There was no mark of circumciſion on the body, ſo that it could not have been either of a Jew or of a Mahometan. The feet lay toward the weſt, and the hands were ſtretched down by the ſides of the body. The head was large, forehead quite bald, the hair of a cheſtnut brown colour, and about two inches long. On the crown of the head was an inciſion into the ſkin, but not penetrating into the cranium. The teeth, ears, tongue, and other parts of the face, were perfectly unaltered. The lips were ſtill freſh, and of a vermilion red colour. The hands were white and plump. The eyes—more ſurprizing ſtill—the eyes, which one ſhould have ſuppoſed it impoſſible to keep by any means in a ſtate of vivid preſervation, were clear and ſparkling, as in a perſon actually alive. The joints were all flexible, and yielded readily to the preſſure of the hand. The fingers when bent returned with vigorous elaſticity to their former poſition. The articulation of the foot was alone ſtiffened. The bones of the legs, and thoſe of the right arm, had become ſoft and eaſily flexible; but the other bones of the body, and the cranium in particular, retained their natural hardneſs. A ſurgeon ſtruck an inciſion knife into the region of the ſtomach, and introduced his finger to aſcertain the ſtate of the diaphragm

and the lower viſcera. The diaphragm was extended, and pliable under the hand; the other parts were elaſtic, and entire, as in a carcaſe quite freſh. The ſternum, when raiſed by this aperture, yielded readily to the movement, and then, with an exploſion of wind, returned to its former poſition. Nothing can be more remarkable, than that the entrails ſhould in this mummy have been preſerved ſo entire. It had not been, like thoſe of Egypt, deſiccated with an alkali. It had been preſerved with all the liquids natural to it. The entrails are ſaid to have been coated on both ſides, with a matter which rendered them tranſparent, and was different from the matter embalming the reſt of the body. As there appeared no inciſion on the ſkin, the liquid which preſerved the bowels was ſuppoſed to have been poured in at the anus.

The peaſants of Martres thought that a body in this ſtate muſt have been ſo preſerved by miracle. They removed the mummy into their church, with the ringing of bells, and other ſolemnities. They carried off the aromatous matter, the bandages, the winding-ſheets, and even cut away the ſkin from the forehead, and pulled out the front teeth to be preſerved as ſo many precious relics. The biſhop of Clermont being informed of theſe frolics of ſuperſtition, thought it his duty to put an end to them; and gave orders that the ſuppoſed ſaint ſhould be reinterred, which was done accordingly.

Had it not been for the magiſtrates of the ſtewartry of Riom, a relic of ſuch rare art would have been entirely loſt to the world. But Martres was ſubject to their authority; and they ordered the body to be again taken up from its interment. The mummy was then conveyed to Riom, and placed in the hoſpital of that town. To preſerve it from ſuffering by the action of the air, it was incloſed in a caſe of glaſs. The object of the magiſtrates was to procure alms to the hoſpital, by attracting with it the curious viſits of ſtrangers. But in the mean time came an order from Verſailles, requiring it to be tranſmitted to the cabinet of Natural Hiſtory at Paris. There it remains at preſent, but diſcoloured, dried up, contracted, and in the whole ſo much altered, that thoſe who ſaw it at the firſt, can now ſcarcely diſtinguiſh it to be the ſame object.

EXPERIMENTS *and* OBSERVATIONS *on certain* STONY *and* METALLINE SUBSTANCES *which at different Times are ſaid to have fallen on the* EARTH, *&c. continued from Page* 30.

IT remains for me to ſpeak of a ſubſtance mentioned in the *Lithophylacium Bornianum*, part i. p. 125, deſcribed thus:—'Ferrum retractorium, granulis nitentibus, matrice vireſcenti immixtis, (*Ferrum virens* Linn.) cujus fragmenta, ab unius ad vigenti uſque librarum pondus, cortice nigro ſcoriaceo circumdata, ad Plaun, prope Tabor, circuli Bechinenſis Bohemiæ, paſſim reperiuntur.'

The iron thus deſcribed is moreover made remarkable by a note *, which obſerves, that credulous people aſſert it to have fallen from heaven, during a thunder ſtorm, on the 3d of July 1753.

The collection of baron Born, it is well known, has a place in the cabinet of the right hon. Charles Greville, who, from the effect produced by comparing the hiſtories and ſtructure of the Italian and Yorkſhire ſtones with the deſcription of this iron, was induced to ſearch the collection of Born, where he diſcovered the very ſubſtance aſſerted to have fallen on the 3d of July 1753. How far theſe four ſubſtances have reſemblance to each other, it will ſoon appear not to be my province to anticipate. The preſident having done me the honour to ſubmit his ſpecimens of the Yorkſhire and Italian ſtones to

* Quæ (fragmenta) 3 Julii, anni 1753, inter tonitrua, e cœlo pluiſſe creduliores quidam aſſerunt.

my examination, I became indebted to Mr. Greville and Mr. Williams for a ſimilar diſtinction: and, being thus poſſeſſed of four ſubſtances, to all of which the ſame origin had been attributed, the neceſſity of deſcribing them mineralogically did not fail to preſent itſelf. To execute this taſk, no one could be more eager, and certainly no one better qualified, than the count de Bournon. He has very obligingly favoured me with the following deſcriptions.

Mineralogical Deſcription of the various Stones ſaid to have fallen upon the Earth. By the Count de Bournon, F.R.S.

The ſtones I am about to deſcribe are not of any regular ſhape; and thoſe which were found in an entire ſtate, that is, thoſe which had not been broken, either by their fall or otherwiſe, were entirely covered with a black cruſt, the thickneſs of which was very inconſiderable.

The ſtones which fell at Benares are thoſe of which the mineralogical characters are the moſt ſtriking: I ſhall therefore begin the following deſcription with them; and ſhall afterward make uſe of them, as objects of compariſon, in deſcribing the others.

Stones from Benares.

Theſe ſtones, as well as the others deſcribed in this paper, whatever may be their ſize, are covered over the whole extent of their ſurface with a thin cruſt of a deep black colour: they have not the ſmalleſt gloſs: and their ſurface is ſprinkled over with ſmall aſperities, which cauſe it to feel, in ſome meaſure, like ſhagreen, or fiſh-ſkin.

When theſe ſtones are broken, ſo as to ſhow their internal appearance, they are found to be of a grayiſh aſh colour; and of a granulated texture, very ſimilar to that of a coarſe grit-ſtone: they appear evidently to be compoſed of four different ſubſtances, which may be eaſily diſtinguiſhed by making uſe of a lens.

One of theſe ſubſtances, which is in great abundance, appears in the form of ſmall bodies, ſome of which are perfectly globular, others rather elongated or elliptical. They are of various ſizes, from that of a ſmall pin's head to that of a pea, or nearly ſo; ſome of them however, but very few, are of a larger ſize. The colour of theſe ſmall globules is gray, ſometimes inclining very much to brown; and they are completely opaque. They may, with great eaſe, be broken in all directions: their fracture is conchoid, and ſhows a fine, ſmooth, compact grain, having a ſmall degree of luſtre, reſembling in ſome meaſure that of enamel. Their hardneſs is ſuch, that, being rubbed upon glaſs, they act upon it in a ſlight degree; this action is ſufficient to take off its poliſh, but not to cut it: they give faint ſparks when ſtruck with ſteel.

Another of theſe ſubſtances, is a martial pyrites, of an indeterminate form; its colour is a reddiſh yellow, ſlightly inclining to the colour of nickel, or to that of artificial pyrites. The texture of this ſubſtance is granulated, and not very ſtrongly connected: when powdered, it is of a black colour. This pyrites is not attractable by the magnet; and is irregularly diſtributed through the ſubſtance of the ſtone.

The third of theſe ſubſtances conſiſts in ſmall particles of iron in a perfectly metallic ſtate, ſo that they may eaſily be flattened or extended by means of a hammer. Theſe particles give to the whole maſs of the ſtone the property of being attractable by the magnet; they are, however in leſs proportion than thoſe of pyrites juſt mentioned. When a piece of the ſtone was powdered, and the particles of iron ſeparated from it, as accurately as poſſible, by means of a magnet, they appeared to compoſe about $\frac{2}{100}$th of the whole weight of the ſtone.

The three ſubſtances juſt deſcribed are united together by means of a fourth, which is nearly of an earthly

conſiſtence. For this reaſon, it is eaſy to ſeparate, with the point of a knife, or even with ths nail, the little globular bodies above-mentioned, or any other of the conſtituent parts of the ſtone we may wiſh to obtain. Indeed the ſtone itſelf may readily be broken merely by the action of the fingers. The colour of this fourth ſubſtance, which ſerves as a kind of cement to unite the others, is a whitiſh gray.

The black cruſt with which the ſurface of the ſtone is coated, although it is of no great thickneſs, emits bright ſparks when ſtruck with ſteel: it may be broken by a ſtroke with a hammer, and ſeems to poſſeſs the ſame properties as the very attractable black oxide of iron. This cruſt is, however, like the ſubſtance of the ſtone, here and there mixed with ſmall particles of iron in the metallic ſtate: they may eaſily be made viſible by paſſing a file over the cruſt, as they then become evident on account of their metallic luſtre. This is more particularly the caſe with reſpect to the cruſt of thoſe ſtones which remain to be mentioned, they being much more rich in iron than I have juſt deſcribed; a circumſtance I think it needleſs to repeat in the following deſcriptions of them. The ſtone now treated of, does not, when breathed upon emit an argillaceous ſmell: the ſame remark may be applied to all the others.

The ſpecific gravity of this ſtone is 3352.

Stone from Yorkſhire.

This ſtone, the conſtituent parts of which are exactly the ſame as thoſe of the ſtones from Benares, differs from them, however,

Firſt, In having a finer grain.

Secondly, That the ſubſtance deſcribed as being in the form of ſmall globular or elliptical bodies, is not ſo conſtantly in thoſe forms, but is alſo found in particles of an irregular ſhape; a circumſtance that is not met with in the other ſtones: theſe bodies are likewiſe, in general, of a ſmaller ſize.

Thirdly, The proportion of martial pyrites, which has preciſely the ſame characters as that in the ſtones from Benares, is leſs; on the contrary, that of the iron in the metallic ſtate is much greater. The quantity I was able to ſeparate by means of the magnet, appeared to me to compoſe about eight or nine parts, in one hundred, of the weight of the whole maſs. I obſerved many pieces of this iron, of a pretty conſiderable ſize; one of them, taken from a portion of the ſtone I had powdered in order to ſeparate the iron, weighed ſeveral grains.

The part of the ſtone which is in an earthly ſtate, and which ſerves to connect the other parts together, has rather more conſiſtence than that of the preceding ſtones; and its appearance does not differ much from that of the preceding ſtones; and its appearance does not differ much from that of decompoſed felſpar or kaolin. The ſtone itſelf, therefore, although by no means hard, is rather more difficult to break with the fingers.

The ſpecific gravity of this ſtone is 3508.

Stone from Italy.

This ſtone was in a perfectly entire ſtate; conſequently, its whole ſurface was covered over with the black cruſt peculiar to all ſtones of this kind. As the ſtone was of a very ſmall ſize, it became neceſſary to ſacrifice the whole of it to the inveſtigation of its nature. Its grain was coarſe, ſimilar to that of the ſtones from Benares: in it might be perceived the ſame gray globular bodies, the ſame kind of martial pyrites, and the ſame particles of iron in the metallic ſtate. The proportion of theſe laſt was much leſs than in the ſtone from Yorkſhire, but rather greater than in the ſtones from Benares. The ſame kind of gray earthy ſubſtance ſerved to connect the different parts together; and nothing more could be

perceived, except a few globules, which conſiſted wholly of black oxide of iron, attractable by the magnet, and one ſingle globule of another ſubſtance, which appeared to differ from all thoſe we have already deſcribed. This laſt ſubſtance had a perfectly vitreous luſtre, and was completely tranſparent; it was of a pale yellow colour, ſlightly inclining to green; and its hardneſs was rather inferior to that of calcareous ſpar. The quantity of it, however, was too ſmall to be ſubmitted to ſuch an inveſtigation as might have determined its nature. The black cruſt which covered the ſtone was rather thinner than that of the ſtones already deſcribed; and ſeemed to have undergone a kind of contraction, which had produced in it a number of fiſſures or furrows, thereby tracing upon the ſurface the appearance of compartments, ſimilar in ſome meaſure to what is obſerved in the ſtones called *ſeptaria*.

The ſpecific gravity of this ſtone was 3418.

Stone from Bohemia.

The internal ſtructure of this ſtone is very ſimilar to that of the ſtone from Yorkſhire. Its grain is finer than that of the ſtones from Benares: in it may be obſerved the ſame gray ſubſtance, both in ſmall globules and in particles of an irregular ſhape; alſo the ſame particles of metallic iron. The ſame kind of earthy ſubſtance likewiſe ſerved to connect the other parts together.

This ſtone, however, differs materially from the others.

Firſt, The particles of pyrites cannot be ſeen without a lens.

Secondly, It contains a much larger quantity of iron in the metallic ſtate; inſomuch, that the proportion of that metal, ſeparated from it by means of the magnet, amounted to about $\frac{25}{100}$ths of the weight of the whole.

This ſtone has alſo (owing, perhaps, to its having remained a much longer time in the earth than the preceding ones, all of which were taken up nearly at the very inſtant of their fall) another difference, viz. many of the particles of iron in a metallic ſtate have undergone an oxidizement at their ſurface; a circumſtance that has produced a great number of ſpots of a yelloviſh brown colour, and very near to each other, over a part of its internal ſubſtance. This oxidizement, by adding to the bulk, and to the force of action, of the part we have deſcribed as ſerving by way of cement to the other conſtituent parts of the ſtone, has occaſioned a greater degree of adheſion between theſe parts, and has rendered the ſubſtance of the ſtone more compact.

The great quantity of iron in a metallic ſtate which this ſtone contains, added to its greater compactneſs, makes it capable of receiving a ſlight degree of poliſh: whereas it is impoſſible to give any poliſh to the others. When poliſhed, the iron becomes very evident, in the poliſhed part; appearing in the form of ſmall ſpecks, almoſt cloſe to each other, which have the colour and luſtre peculiar to that metal; theſe ſpecks are, in general, nearly of an equal ſize.

The black cruſt of this ſtone is ſimilar to that of the others.

The ſpecific gravity of the ſtone is 4281.

It is eaſy to perceive, from the foregoing deſcription, that theſe ſtones, although they have not the ſmalleſt analogy with any of the mineral ſubſtances already known, either of a volcanic or any other nature, have a very peculiar and ſtriking analogy with each other. This circumſtance renders them truly worthy to engage the attention of philoſophers, and naturally excites a deſire of knowing to what cauſes they owe their exiſtence.

I proceed to conſider the aſſiſtance to be derived from chemiſtry, in diſtinguiſhing theſe ſtones from all other known ſubſtances, and in eſtabliſh-

ing the aſſertion, that they have fallen on the earth.

The analyſis made by the French academicians of the ſtone preſented to them by the abbe Bachelay, was, in part, conducted by the ever to be deplored Lavoiſier; but it was performed before that celebrated author had enriched chemiſtry with his laſt diſcoveries, and before he had given birth to the ſyſtem under which it flouriſhes. The reſult of this analyſis might well induce the concluſion, that the ſubject of it was common pyritical matter. It was unfortunately made of an aggregate portion of the ſtone, and not of each diſtinct ſubſtance, irregularly diſſeminated through it. The proportions obtained were, conſequently, as accidental as the arrangement of every ſubſtance in the maſs.

The analyſis of M. Barthold, of the ſtone of Enſiſheim, is ſubject to the ſame objections; but, after having the advantage of the foregoing deſcriptions, the reſearches which follow cannot be ſuppoſed altogether liable to a ſimilar fatality.

[To be continued.]

EXTRACTS *from* WARNER'S TOUR *through the Northern Counties of* England, *&c.*

WORCESTER MANUFACTORY OF CHINA-WARE.

The works belonging to Meſſrs. Flight and Barr, are conveniently ſituated cloſe to the Severn, which flows by the city, are remarkable for their neatneſs and convenience, and diſplay the whole proceſs of making porcelain, from grinding the various articles to compoſe the clay uſed for the purpoſe, to packing the finiſhed pieces for the market. Intereſting as this manufactory is, you will excuſe me for giving its detail. The mixture above mentioned conſiſts of fifteen articles, the chief of which are, a white granite, from Cornwall, and a ſteatite or ſoap-ſtone, from Penzance, in the ſame county, the whole quarry of which belongs to Mr. Flight, who employs his own men there. Theſe articles, being firſt ground ſeparately, are afterward mixed, and then calcined; the product of this proceſs is a quantity of ſmall blue and white lumps, which being thrown into a mill, and ground with ſoft water, a liquid of the conſiſtence of thick cream is produced, perfectly white. This is paſſed through a lawn ſieve, and then poured into vats, heated by outſide flues in order to conſolidate, the degree of heat applied to them being kept under the boiling temperature. The water gradually evaporating by theſe means from the contents of theſe vats, a hard clay remains in the room of the liquid, which is brought into a ſtone apartment to be tempered, that is, whetted with water, beaten with a wooden mallet, and trodden by a man with his bare feet. The material is now fit for the thrower, who throws a maſs of it upon his lathe and horizontal wheel, ſet in motion by a boy (turning a verticle one) and whirled round with a degree of ſwiftneſs, either greater or leſs, as the thrower ſees occaſion. To this a gauge is attached, to aſcertain exactly the dimenſions of the article. The hands of the thrower being kept ſteady, the rotatory motion of the wheel being quick, and the clay ſoft but tenaceous, the eye is agreeably ſurpriſed with the inſtantaneous creation of beautiful forms out of a ſhapeleſs maſs of clay, which every moment change their appearance according to the motion of the finger and thumbs of the workman; now riſing into a long cylinder, again ſinking immediately, and approaching the rotundity of a ſphere, and at length ſettling into the elegant ſhape of an ancient vaſe, a modern mug, or a faſhionable tea-pot. The articles thus prepared are then dried upon flues to conſolidate their texture, and render them

ſe for the *verticle lathe* of the *turner*. Placed upon this machine, they are reduced to their proper thickneſs and exact form; and if their pattern require handles or ſpouts, they are fitted with them by a workman called the *handler*. From this workſhop they are carried into the *kiln-houſe* to be burned, and placed in *ſaggars*, or circular pans, made of Staffordſhire crucible clay, open at the top, and about eight inches deep, the flat bottoms of which are ſtrewed with calcined flint, to prevent the adheſion of the articles to them. The kiln uſually holds about one thouſand five hundred of theſe ſaggars, and frequently from twenty-five to thirty thouſand pieces of ware. Here they continue thirty-ſeven hours, expoſed to ſuch a violent heat as to render them red-hot, but carefully protected from flame. On coming out they are ſaid to be in the *biſcuit ſtate*, that is, having the appearance of an unglazed tobacco pipe. If any blue be in the pattern of the articles, the figures are traced upon them at this time with a hair pencil, dipped in a mixture of a purple colour; and being ſuffered to dry, they are then immerſed in a red liquid called the *glaze*, of the conſiſtence of cream, chiefly compoſed of white lead and ground flint. This adheres to every part of the articles, which are placed to dry in a room of a certain temperature, from whence they come out with a ground of a pale pink colour, and the pattern of a dingy purple. Being perfectly dry, they are given to the trimmer, who ſmooths the ſurface of the article, and rubs off any little inequalities of the glaze; the moſt unwholeſome part of the whole proceſs, as he frequently inſpires particles of the white lead, &c. to the great detriment of the ſtomach and lungs; which, indeed, he is obliged to relieve by frequent emetics. The articles are next placed in the glaze-kiln, and remain there twenty-eight hours expoſed to the fire, which being extinguiſhed, the whole are ſuffered gradually to cool, and then taken out, when they exhibit a wonderful metamorphoſis, effected by the chemical agency of fire. A vitrification having taken place on their ſurface, a beautiful gloſſy covering diſcovers itſelf within and without, in the room of the dull unpoliſhed appearance they before had; and the figures of purple are converted into a vivid and beautiful blue. After paſſing through the ſorting room, they are given to the painters, who with colours properly and nicely prepared (for the hues are all changed by a ſubſequent firing) trace thoſe beautiful patterns, figures and landſcapes upon them, which almoſt rival the force and effect of the canvas. Again they are placed in the kiln, in order to fix the colours, and remain there for ſix hours. This completes the proceſs of ſuch articles as have no gold in their pattern; but thoſe which are ornamented with this ſuperb addition undergo another burning after the ennamel is laid on. They are alſo carried afterward into the burniſhing ſhop, where this final decoration is given them by a number of women, who ſoon change the dull ſurface of the gold into a moſt brilliant appearance, by rubbing the gilt part of the pattern with little inſtruments pointed with blood-ſtones, and other poliſhing ſubſtances. They are now ready to be introduced into the world, and are ſent forth to gratify vanity, decorate ſplendour, or accommodate luxury; to ornament the tea-table of high life, the dreſſing room of faſhion, and the boards of the great; for the Worceſter manufactory ſoars above the humbler articles in uſe among the happier tribes of common life. It would ſurpriſe a modern fine lady, were I to tell her, that the cup from which ſhe ſips her tea had been through the hands at leaſt of twenty-three dirty workmen before it met her lips; but ſuch is the fact: for if we retrace the proceſs, we ſhall find the following crowd employed for the purpoſe; the man who grinds the articles for the compoſition; the man that mills them;

the perſon that calcines them; the grinder of the lumps; the ſifter; the attender on the vats; the temperer; the thrower; the drier; the turner; the ſpout maker, who forms the ſpouts and handles; the handler, who puts them on; the biſcuit fireman; the blue painter; the dipper, who immerſes them in glaze; the trimmer, who clears them from irregularities in glazing; the glaſs fireman; the ſorter; the painter: the colour fire-man; the gold enameller; the enamel fire-man; the burniſher. It is to be obſerved that many articles which could not be conveniently thrown, ſuch as tureens, plates, and diſhes, are made on moulds of plaſter of Paris, and when dry are given to the turner as above-mentioned. The earnings of the workmen in this manufactory, who are all paid by the piece, are very conſiderable; throwers and turners making about 25s. dippers and glazers 21s. and painters from 30s. to two guineas.

ANECDOTE OF DR. JOHNSON.

DURING the laſt viſit which the doctor made to Lichfield, the friends with whom he was ſtaying miſſed him one morning at the breakfaſt table; on enquiring after him of the ſervants, they underſtood he had ſet off from Lichfield at a very early hour, without mentioning to any of the family whither he was going. The day paſſed without the return of the illuſtrious gueſt, and the party began to be very uneaſy on his account, when, juſt before the ſupper hour, the door opened, and the doctor ſtalked into the room. A ſolemn ſilence of a few minutes enſued, nobody daring to enquire the cauſe of his abſence, which was at length relieved by Johnſon addreſſing the lady of the houſe in the following manner: 'Madam, I beg your pardon for the abruptneſs of my departure from your houſe this morning; but I was conſtrained to it by my *conſcience*. Fifty years ago, madam, on this day, I committed a breach of filial piety, which has ever ſince lain heavy on my mind, and has not till this day been expiated. My father, you recollect, was a bookſeller, and had long been in the habit of attending —— market; and opening a ſtall for the ſale of his books during that day. Confined to his bed by indiſpoſition, he requeſted me, this time fifty years ago, to viſit the market, and attend the ſtall in his place. But, madam, my pride prevented me from doing my duty, and I gave my father a refuſal. To do away the ſin of this diſobedience, I this day went in a poſtchaiſe to ———, and going into the market at the time of high buſineſs, uncovered my head, and ſtood with it bare an hour before the ſtall which my father had formerly uſed, expoſed to the ſneers of the ſtanders by, and the inclemency of the weather; a penance by which, I truſt, I have propitiated heaven for this only inſtance, I believe, of contumacy toward my father'.

DESCRIPTION OF A LIFE-BOAT.

THE life-boat, conſtructed by Mr. Henry Greathead, ſhip carpenter of Shields, is found to anſwer the valuable purpoſe for which it was deſigned. Its form is that of a long ſpheroid, thirty feet in length by twelve feet over; either end pointed, and thus calculated to row both ways, an oar ſerving the purpoſe of the helm. About eighteen inches below the gunwale a ſtrong lining of cork covers the whole of the inſide, which gives the boat ſuch a buoyancy as enables it to live in any water. The crew uſually conſiſts of about twenty men, and the capacity of the boat enables it to receive about ten more. On the 30th of January 1790, the life-boat of South Shields firſt put to ſea in a horrible gale of wind, for the glorious purpoſe of reſcuing ſome unfortunate mariners who were the ſport of the tempeſt in the offing, a number of cork jackets being provided for the crew, in caſe their veſſel diſappointed the expectations of the inventor, and failed in its purpoſe. But the precaution was unneceſſary; floating like

Mr. Lester's Cultivator.

Fig. 1.

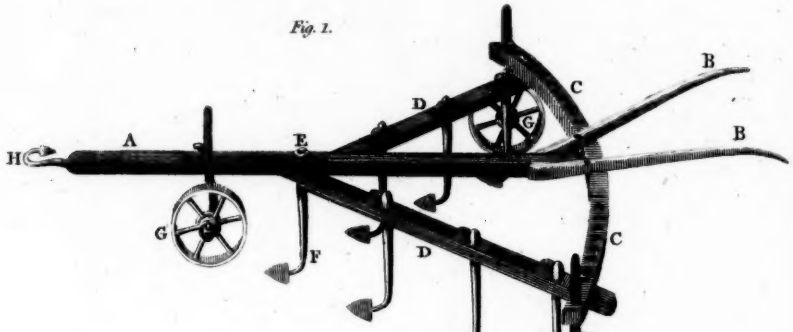
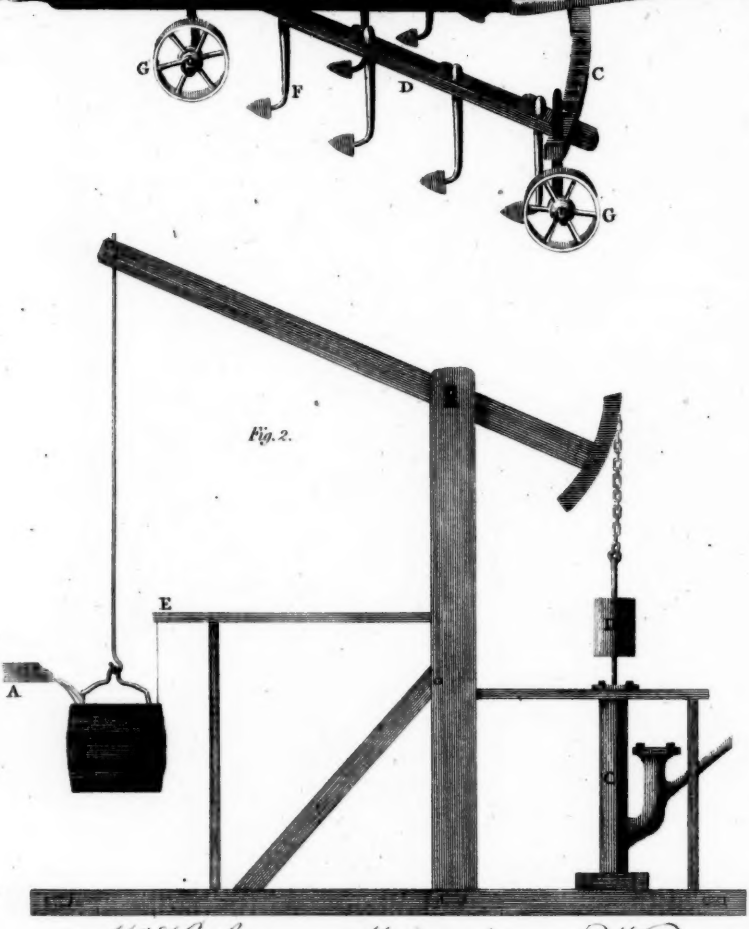


Fig. 2.



Mr. H. Sarjeant's Machine for raising Water.

a feather upon the water, it rode triumphantly over every raging ſurge, and ſmiled at the horrors of the ſtorm. The wreck was approached in ſpite of the elements, and the wretched crew, equally affected with aſtoniſhment and extacy, beheld the glorious life-boat, (never was a name more happily imagined, nor more appropriately beſtowed) alongſide of their ſhattered veſſel, and offering a refuge from the tremendous abyſs that was opening to ſwallow them up for ever. Reſtored to hope and life, they were removed into the friendly boat, and brought to land, to the unſpeakable joy of the benevolent projectors of the plan, who had thus the double gratification of ſeeing that the veſſel was calculated to anſwer its intention in the completeſt manner, and of reſcuing at the ſame time ſeveral fellow creatures from inevitable deſtruction. Since this firſt trial, repeated deſperate voyages have been made for ſimilar purpoſes, and with the like ſucceſs, to the ſalvation of many hundred diſtreſſed ſailors; and ſo confident are the ſeamen of the ſafety of the boat, and the impoſſibility of its being liable to caſualty, that it is now become a matter of ſatisfaction to be employed in this ſervice of ſaving the ſhipwrecked, a ſervice that well deſerves the civic crown. The inventor, naturally enough ſuppoſing that an object of ſuch importance to the ſtate as ſaving its citizens from periſhing would be encouraged by government, ſubmitted his plan, and offered his ſervice to the miniſtry a few years ſince for the conſtruction and eſtabliſhment of life-boats all along the coaſts of the kingdom; but the attention of the public was then unfortunately directed to other objects than the economizing of human exiſtence, and his offers were unattended to. In the true ſpirit of philanthropy, however, Mr. Henry Greathead, waving the idea of excluſive profit, inſtead of taking out a patent for the admirable invention, and thus confining its advantages to himſelf, generouſly offered to communicate to others every information in his power on the ſubject of the conſtruction of the life-boat, and to diffuſe by theſe means, as much as poſſible, the bleſſings reſulting from its adoption. In conſequence of this, another perſon has built veſſels of the ſame kind, and their number has thus been multiplied in the manner before mentioned. The pecuniary remuneration which the crew of the life-boat receive, is what the generoſity of the affluent, ſaved by their exertions, may beſtow upon them; 'the bleſſing of him that was ready to periſh' is the only, but rich reward, when the poor mariner is reſcued from deſtruction by their means.'

Parliament have ſince granted to Mr. Greathead 1200l. for the invention. EDIT.

An ACCOUNT *of a* CULTIVATOR, *invented by Mr.* William Leſter, *of* Northampton: *Illuſtrated by a Drawing of the* IMPLEMENT *.

[From the Tranſactions of the Society of Arts, &c. Vol. XIX.]

AS the health and luxuriance of corn depend in a great meaſure, on the pulverization of the ſoil previous to the ſeed being ſown, the Society of Arts will, I am perſuaded, give every encouragement in their power to the introduction of any implement that promiſes an abridgement of labour; and as all tenacious ſoils are pulverized in the beſt manner in dry weather, when their particles are the moſt diſjointed, and their contact broken, the

* Mr. Leſter was preſented with the Silver Medal of the Society for his invention of this Cultivator, which, from its powers of contraction and expanſion, may probably be very uſeful in working rough fallows after ploughed crops, and reducing the ſoil to a greater degree of pulverization than can be effected by repeated ploughings and harrowings in the common method.

propriety of taking advantage of working them in that ſtate will be obvious: and at the ſame time it follows, that an improved implement for the abridgement of labour would be a deſirable thing, in a climate like England, where the ſeaſons are ſo uncertain.

In working on a rough fallow, my Cultivator ſhould be ſet at its greateſt expanſion, and contracted in proportion as the clods are reduced. I am confident that one man, a boy, and ſix horſes, will move as much land in a day, and as effectually, as ſix ploughs; I mean land in a fallow ſtate, that has been previouſly ploughed.

It will be requiſite in ſome ſtates of the ſoil to alter the breadth of the ſhares; but of this, I preſume, the farmer will always be a proper judge. By the expanſion and contraction of the Cultivator, the points of the ſhares are, in a ſmall degree, moved out of the direct line; but this is ſo trifling, that it is no impediment to its working. I am, &c.

Northampton, Feb. 10, 1801. WM. LESTER.

A certificate from Mr. William Shaw, of Cotton-end, near Northampton, accompanied this letter; in which he ſtates, that he had uſed Mr. Leſter's Cultivator upon a turnip fallow laſt ſummer, and that he believes it to be a very uſeful implement for cultivating the land in a fallow ſtate, by its working or ſcuffling off ſeven acres per day, with ſix horſes. He adds, that, from its property of contracting and expanding, it is calculated to work the ſame land in a rough or fine ſtate, by which means it unites the principles of two implements in one; and by the index on the axis, it may be worked at any given depth required.

Deſcription of Mr. Leſter's Cultivator. See the Plate. Fig. 1.

A. The beam.

B B. The handles.

C C. A croſs-bar of a ſemicircular form, containing a number of holes, which allow the two bars D D, to be placed nearer or further from each other.

D D. Are two ſtrong bars, moveable at one end, upon a pivot E, and extending from thence in a triangular form to the croſs bar C. In theſe bars are ſquare holes, which allow the ſhares F, placed therein, to be fixed to any height required.

The ſeven ſhares marked F, are ſhaped at their lower extremities like ſmall trowels: the upper parts of them are ſquare iron bars.

G G G. Are three iron wheels, on which the machine is moved; they may be raiſed or lowered at pleaſure.

H. The iron hook to which the ſwingle-tree and horſes are to be fixed.

When the machine is firſt employed on the land, the bars D D are expanded as much as poſſible. As the ſoil is more looſened, they are brought nearer to the centre: the ſhares then occupy a leſs ſpace, and the ſoil will conſequently be better pulverized.

An ACCOUNT *and* DESCRIPTION *of a* MACHINE *for raiſing* WATER, *conſtructed by Mr.* H. Sarjeant, *of* Whitehaven: *Illuſtrated by a Drawing of the Machine* *.

[From the SAME.]

I AM ſenſible that the little engine, a drawing of which accompanies this letter, can lay no great claim to novelty in its principle; nevertheleſs it is reſpectfully ſubmitted to the conſideration of the ſociety, how far its ſimplicity, and cheapneſs of conſtruction may render it worthy of their at-

* Mr. Sarjeant was adjudged the Silver Medal of the Society for this Machine, which is of a cheap and ſimple conſtruction, and anſwers well the purpoſe to which it is applied.

tention, with a view to its being more generally known and uſed in ſimilar caſes.

Irton Hall, the ſeat of E. L. Irton, eſq. is ſituate on an aſcent of ſixty or ſixty-one feet perpendicular height; at the foot of which, at the diſtance of about 140 yards from the offices, runs a ſmall ſtream of water. The object was to raiſe this to the houſe for domeſtic purpoſes.

To this end a dam was made at a ſhort diſtance above, ſo as to cauſe a fall of about four feet; and the water was brought by a wooden trough, into which was inſerted a piece of two-inch leaden pipe, a part of which is ſeen at A. See the plate (p. 121) fig. 2.

The ſtream of this pipe is ſo directed as to run into the bucket B, when the bucket is elevated; but ſo ſoon as it begins to deſcend, the ſtream flows over it, and goes to ſupply the wooden trough or well in which the foot of the forcing pump C ſtands, of three inches bore.

D, is an iron cylinder attached to the pump rod, which paſſes through it. It is filled with lead, and weighs about 240 lbs. This is the power which works the pump, and forces the water through 420 feet of inch pipe from the pump up to the houſe.

At E is fixed a cord which, when the bucket comes to within four or five inches of its loweſt projection, becomes ſtretched and opens a valve in the bottom of it, through which the water empties itſelf.

I beg leave to add, that an engine, in a great degree ſimilar to this, was erected ſome years ago by the late James Spedding, eſq. for a lead-mine near Keſwick, with the addition of a ſmaller bucket which emptied itſelf into the larger, near the beginning of its deſcent, without which addition it was found that the beam only acquired a libratory motion, without making a full and effective ſtroke.

To anſwer this purpoſe in a more ſimple way, I conſtructed the ſmall engine in ſuch manner as to finiſh its ſtroke (ſpeaking of the bucket end) when the beam comes into an horizontal poſition, or a little below it. By this means the lever is virtually lengthened in its deſcent in the proportion of the radius to the coſine, of about thirty degrees, or as ſeven to ſix nearly, and conſequently its power is increaſed in an equal proportion.

It is evident that the opening of the valve might have been effected, perhaps better, by a projecting pin at the bottom; but I choſe to give an exact deſcription of the engine as it ſtands. It has now been ſix months in uſe, and completely anſwers the purpoſe intended.

The only artiſts employed, except the plumber, were a country blackſmith and carpenter; and the whole coſt, excluſive of the pump and pipes, did not amount to five pounds.

I am, &c.

Warwick-court, Holborn. H. SARJEANT.

In another letter, dated Whitehaven, April 28, 1801, Mr. Sarjeant further obſerves that the pump requires about eighteen gallons of water in the bucket to raiſe the counter-weight, and make a freſh ſtroke in the pump; that it makes three ſtrokes in a minute, and gives about a half-gallon into the ciſtern at each ſtroke. He adds, 'I ſpeak of what it did in the dryeſt part of laſt ſummer; when it ſupplied a large family, together with work-people, &c. with water for all purpoſes, in a ſituation where none was to be had before, except ſome bad water from a common pump which has been ſince removed. But the above ſupply being more than ſufficient, the machine is occaſionally ſtopped to prevent wear, which is done by merely caſting off the ſtring of the bucket valve.'

P. S I have juſt been informed that a drawing of the engine, which I had communicated to a perſon in this neighbourhood, was ſent to a colliery near Swanſea ſome months ago, and that it has already been applied to uſe there; it is not however ſufficiently powerful for the coal-works in this neighbourhood.

REFLECTIONS ON THE STRUCTURE AND ECONOMY OF BIRDS.

THERE is nothing, in the whole economy of the creation, more remarkable than the wonderful adaptation of the form and ſtructure of every different ſpecies of animals to the circumſtances in which they are deſtined to live. It may be not unpleaſing nor uninſtructive to obſerve how this general fact is particularly exemplified in the ſtructure of birds, of ſo many of the ſpecies of which the hiſtory has been from time to time detailed in this Miſcellany.

Birds differ from quadrupeds, in having wings inſtead of the foreſeet and legs, in having the head ſharpened and diminiſhed into a bill, the neck arched and elevated, the body covered with feathers inſtead of hairs; in having entire freedom from the burdens of geſtation, and the pains of ſuckling their young, and in having the whole outline of their form, and the relative diſpoſitions of the different parts accommodated in a manner the happieſt and moſt admirable, to rapid movement in a thin fluid, like the air, and to the eluding any injuries which the individual might be, in ſuch a flight, expoſed to meet.

Animal heat is probably maintained by the relations between the body and the electrical, or galvanic fluid. That fluid is rapidly carried away from the animal frame whenever it is in a humid and cold atmoſphere. Birds, living in peculiar expoſure to the air, and being, by their movements, accuſtomed to put themſelves almoſt as much as poſſible in contact with thoſe conductors, by which the electricity of the body is the moſt rapidly exhauſted; they would, in almoſt every climate, and in ſtates of the atmoſphere, even very little unfavourable, be ſubject to periſh by an utter deſtitution of natural heat, if their bodies were not much more tenacious of electricity than is that of man. Now their bill, their feathers, their ſkin, and eſpecially the oil which is ſecreted over their ſkin and feathers, are all in a very high degree electrical. By theſe their natural heat is preſerved without abatement, in circumſtances in which that of men and quadrupeds would be mortally exhauſted. Thoſe preſentations by which they often predict to us approaching changes in the ſtate of the weather, ariſe chiefly, if not ſolely, from changes ſuddenly taking place in the relations between their bodies, and the element in which they move. We may perceive that, however fortified againſt the effects of ſuch changes, they are yet violently affected by them. How much more would this happen, if theſe creatures had no other exterior covering than the ſkin and thin hair!

Under that expoſure to moiſture, in which birds live, they would be often apt, were it not for a particular proviſion in nature, to be deſtroyed by wetneſs from rain, ſnows, and wetting miſts, even without the entire abſtraction of their animal heat. Againſt this fate, they are all more or leſs armed; ſome of them, as the water-fowls, to an extraordinary degree by that oilineſs of their feathers, which reſiſts the impreſſion of humidity. On the feathers plentifully bedewed with that natural ſecretion, the drops of rain can no more reſt, than water can be made to ſtand above oil in a veſſel. When by the continuance of rain and cold, the decretion of this oil is in the body of the fowl interrupted; then, and only then, the chilling moiſture comes to pervade the whole frame, to overcome the animal energies, and to act as a cauſe of diſeaſe or inſtant death.

In the manner in which birds produce their young, is another inſtance of the wiſdom with which Providence has accommodated their wants and functions to their ſituation. Were they viviparous, how ill would the peculiarities of geſtation agree with their volatile motions, and with the

manner in which they are deſtined to ſeek their food? But they lay eggs; and the hatching, a labour equivalent to the taſk of geſtation, is performed without adding to the weight or incumbrances of the body. They give no milk for the early nouriſhment of their young; and it is eaſy to ſee that the addition of mammæ, or teats, would have been peculiarly inconvenient to creatures like them, deſtined to move from place to place by flying, and to live chiefly in the air. The period during which they are confined by the care of their young is extremely ſhort. The manner in which they chooſe the materials, and frame the ſtructure of their neſts, is no leſs ſuited to their powers and their deſtination.

We vulgarly attribute all thoſe actions of birds, which indicate any thing like deſign, to a blind inſtinct acting uniformly, but acting without reaſon or choice. This is, however, greatly to miſtake or miſrepreſent the caſe. Does not domeſtication alter the manners of fowls, ſomewhat in the ſame way in which thoſe of mankind are changed by inſtruction and civilization? Parrots and magpies learn to imitate our ſpeech. Singing birds take up one another's notes. Many birds are ſeen to vary their methods of building their neſts, and ſearching for their food, with diverſity of circumſtances, and in a way quite incompatible with the blind uniformity of inſtinct. I have often ſeen a good cottage houſewife, who had not more than half a dozen common hens, living familiarly with herſelf and her children, to mark among thoſe hens deſtinations of habits and character, ſuch as implied differences of temper, and if one may ſay ſo—of intelligence, for which the mere ſuppoſition of inſtinct would not at all account. There is undoubtedly in brutes in general, and in birds, in a manner ſufficiently conſpicuous, a ſort of inferior power of comparing ideas and drawing inferences, which is, however, confined to things that relate to the ſtrong and immediate wants of ſenſe. The notion of an unintelligent imitating, in the inferior animals, the deſigns and general operation of mind, is certainly, when examined to the bottom, one of the moſt abſurd which the vain arrogance of man ever yet betrayed him to conceive.

Let us imagine to ourſelves, that all other things remaining as they now are, the whole ſpecies of birds were ſuddenly annihilated. How ſhould ſo many inſects be deſtroyed, which the watchful rapacity of birds now alone prevents from conſuming and exterminating almoſt every vegetable production of the earth? How ſhould the ſeeds of the different ſpecies of plants be diſperſed over the face of the globe, ſo as to ſpread vegetation wherever there is ground to bear it? How many of our arts would be ſuddenly deprived of their beſt materials? How dead, how gloomy, how melancholy, would be the atmoſphere that environs us, if none of theſe elegant forms, if nothing of that graceful activity, if none of thoſe concerts of natural muſic were in it, which it now owes to the exiſtence and the preſence of birds? Perhaps no other part of animated or of inanimate nature exhibits ſo much, as do birds, of the *beauty* of form, colour, and motions. Should thoſe ſpecies be ſuddenly annihilated, nature would be bereft of more than half her charms.

The food on which fowls are deſtined to ſubſiſt, is ſuited no leſs to their general nature and ſituation. The water-fowls ſubſiſt chiefly on fiſh. The eagle, the kite, the hawk, the vulture, and many others, are diſtinguiſhed as birds of prey, becauſe they devour conſpicuouſly the feeble and gentle of their own kind, as well as of quadrupeds, and of reptiles and inſects. There are very few birds that do not live, more or leſs, on reptiles and inſects. Many ſpecies feed eagerly on grains, fruits, roots, and on all mucilaginous and farinaceous parts of vegetables

In reſpect of nidification, the ſpecies of birds diſplay much matter for curi-

ous obſervation. Some depoſit their eggs in neſts on the cliffs and ledges of rocks. Some chooſe the tops of the trunks, or of the ſtronger branches of trees. Some minute ſpecies affix their neſts to the leaves or ſlender depending branches of trees or ſhrubs. Others hide them in thickets, &c.

Fowls not being furniſhed, like men and quadrupeds, with teeth, partly divide their food with their bills, into ſmall portions, and partly triturate it by a muſcular energy of the ſtomach, greatly ſuperior to that of the ſtomachs of animals which have teeth. By thoſe who keep ſinging birds, which feed upon the hard ſeeds of plants, it has been generally ſuppoſed that a little ſand was requiſite to be given with the ſeeds, to aid the proceſs of trituration in the ſtomach. Some philoſophers inclined to deny that the ſand was of any real uſe in the digeſtion of theſe creatures; and it has been affirmed, that fowls ſwallowing ſand or ſtones with their food, in gathering it naturally for themſelves, did this blindly and from want of that delicacy of ſenſe and organization, which is neceſſary to better ſelection, not from any juſt want in their nature of ſuch aſſiſtance to turn their food to nutriment. But the experiments, in particular, of the late Dr. George Fordyce, ſeem to have finally and deciſively evinced, that without the help of ſuch ſand and ſtones as birds are accuſtomed to ſwallow, they could not long healthily perform the functions of digeſtion. The reſults of Dr. Fordyce's experiments are exhibited in his lecture on the ſubject of Digeſtion, a treatiſe which goes perhaps further to explain this part of the animal economy, than does any thing elſe that has ever yet been written about it.

The migrations of birds, and the power which ſome of them have to paſs the winter in a torpid ſtate, have naturally engaged a great deal of enquiry and ſpeculation. That reſpiration, and the exterior action of the ſenſes may be ſuſpended, while the functions indiſpenſibly neceſſary to vitality ſhall continue to be internally performed, and animal heat ſhall be ſtill maintained in certain ſpecies of birds, quadrupeds, and other living creatures, is a truth to which the belief of philoſophy has been gradually reconciled, though the cauſes and relations of the fact may not yet, perhaps, be duly underſtood.—On the other hand, many ſpecies of fowls are well known to migrate from one country to another, as the ſeaſons proceed, as temperatures vary in different climates, as the food the moſt ſuitable for their nouriſhment ceaſes to be found in one region, and becomes abundant in another. This excites our wonder, rather from our accuſtomed careleſſneſs of obſervation, than from any thing in the general fact, that can ſeem to be out of the common courſe of nature. The paſſage of birds from place to place, is ſo rapid and eaſy, that to them what is a wide diſtance to man, becomes but a ſhort and narrow interval. The ties which attach them to one local ſituation rather than another, exiſt only in climate, in the location of their neſts, in the diſtribution of their food, in the opportunities of that ſhelter which is demanded to their ſecurity from the rapacity of other ſpecies. What then can be more natural, than that birds, ſuch as ſwallow, ſhould, when their young are hatched, and grown to the maturity at which they may forſake the parent neſt, when they find a ſcarcity of that food by which they were invited hither, when the temperature of the air ceaſes to be preciſely of that genial character in which they delight, ſhould take flight for ſome other land. When birds cannot endure the climate in which they are, or cannot find ſubſiſtence in it, yet have no other ſuitable to their nature and modes of living, to which they can fly; it is then the order of nature, that if they are to ſurvive further, they ſhould paſs into a temporary ſtate of torpor.

Birds have been known to attain to great longevity. The eagle's renewal of his age, has, from the alluſive mention of it in the holy ſcriptures, become proverbial. Parrots have been known to live more than thirty years. Pigeons, many times, are found to exceed the age of twenty. A goldfinch has lived three-and-twenty years in a cage. A gooſe has been known to ſurvive for a full century. And it is ſaid that the ſwan, if it periſh not by accidental misfortune, will live even three hundred years.

All theſe facts beautifully exemplify the wiſdom of the Creator in the formation and economy of birds, and diſplay the fitneſſes by which he has adapted their powers and propenſities to their condition in the general order of his works.

HYDRO-MANIA.

To the Editor of the Univerſal Magazine.

Sir, Brighthelmſton, July 20.

BY the inoculation with the matter of the cow-pock, it ſeems probable that one of the moſt terrible of our epidemical diſtempers, of a merely phyſical character, may be entirely extirpated. I wiſh ſome ſimilar remedy could be found for a diſtemper partly phyſical, and in part moral, which turns this, and a number of other towns in England, every ſummer into ſo many hoſpitals, with the peculiar diſadvantage, that ſcarce ever a patient goes away from any of them entirely cured.

The diſtemper I mean, may be named the *Hydro-mania*. It differs from the *Hydro-phobia*, particularly in having its origin with the human race, as that originates with the canine ſpecies. It infeſt chiefly the inhabitants of the metropolis, and other great towns. Yet it is not confined to theſe excluſively. The infection ſpreads likewiſe over the country, and is felt in the village and in the hamlet. Like the ſmallpox, and other common fevers, it is always in the country; but breaks out periodically in the hotter ſeaſon of the year with peculiar force.

Its ultimate cauſes are no more capable of being exactly traced, than thoſe of any of the ſubtleſt epidemical diſeaſes. It diſplays itſelf at firſt in a violent inclination for bathing in the ſea, or in ſome medicinal bath, or for drinking at the ſource of ſaline waters. This inclination haunts the mind which has once begun to feel its influence with a pertinacity which nothing can overcome. It has all the dangerous power of that longing with which the fair ſex are in certain delicate ſituations liable to be affected. Or its power may be not unaptly compared to that with which the ſting of the gadfly ſtartles the ox, and drives him to ſeek refuge and cool himſelf in the pool. Or the compariſon will perhaps hold ſtill more nearly, if we ſhould aſſimilate it to thoſe feelings in *Hydro-phobia*, under which the patient imagines to himſelf the delights of guſhing ſprings, murmuring rills, and daſhing waterfalls, and paſſionately long to lave and drink.

The perſon once thus infected with the *Hydro mania*, ſoon becomes inexpreſſibly uneaſy under it. It produces ſometimes a languor, ſometimes a reſtleſſneſs, at times a peeviſhneſs, which unfits him for his uſual labours, and renders every accuſtomed enjoyment for a time diſguſtful. To the fair ſex, the ſymptoms are often more violent and oppreſſive. Nothing, but going to the watering-place for the ſeaſon, can now be thought of. The more the inclination is thwarted, ſo much the more does it rage. Body and mind are alike a prey to the diſtemper. And every difficulty muſt be at laſt overcome, which ſtands in the way of an excurſion to Bath, Brighthelmſton, Ramſgate, Margate, &c.

Suppoſe then every ſuch difficulty happily overcome, and the patient fairly ſet down here at Brighthelmſton. Does my lady drink the waters? Nothing leſs. Does ſhe bathe? Not at all. But ſhe gets up in time to meet the morning-ſun, as he firſt breaks through the dawn? No; ſhe lounges in bed till the very afternoon, as ſhe did in town. She paſſes the evening and night at the ball, or at the card-aſſembly. The waters ſhe abhors, as if there were in her nature an irreconcileable antipathy to them. On the green turf ſhe never ſets a foot. You might as ſoon force a dog affected with the *Hydro-phobia* to ſwallow that water, for the want of which he ſeems to periſh, as perſuade this good lady, or any other of the patients who are ſimilarly touched with this diſeaſe, to take one of thoſe amuſements, refreſhments, or means of invigorating the health and enlivening the mind, which a ſcene like this ſeems peculiarly adapted to afford. After living here in a manner ſo contrary to the conveniences of the ſcene, till they have loſt or conſumed all their money, or till there remain no companions of their folly, they then return to their wonted abodes, or wander about to other watering-places; exclaiming againſt the odious dullneſs of thoſe they have already viſited; carrying ſtill about with them the ſame *Hydro-mania*, though now perhaps in a ſomewhat latent ſtate in their veins; perhaps affecting to ſpeak of joys and a renovation of health here, which they never knew; and prepared, after a ſhort abſence, to find that affectation change to a maniac imagination of health and joy to be here met, like the fancy which has been before often renovated in them, and as often diſappointed.

Now, ſir, you might, at a firſt view, poſſibly think that by theſe ſufferers under *Hydro-mania*, the watering-places at leaſt are poſſibly gainers. But, alas! ſir, it is far otherwiſe. The waters, from their inability to cure this ſtrangely capricious diſtemper, loſe their merited reputation for other cures. It comes to be alleged—that going to watering-places is altogether folly—that to bathe in the waters; to quaff them in cooling draughts; to meet the early rays of the morning ſun on contiguous fields; to eat of ſimple yet healthful fare with moderation; to abſtain from exceſs in drinking; to take exerciſe as long as it enlivens and braces, but does not give exceſſive fatigue; to take due alternations of reſt, and to learn to ſteep the ſenſes in balmy ſleep, from nine in the evening till five in the morning; that theſe, the true delights of a watering-place, are of no power to miniſter to the reſtoration of waſted health and ſpirits. It begins to be imagined, that a ſhort intermiſſion during ſummer from the wonted labours and diverſions of the town, can be of no real benefit. Watering-places come to be regarded as fit haunts merely of *ennui* and idle pleaſure. They loſe their genuine charm; and they loſe alſo that praiſe from which their proſperity firſt aroſe. Preſerve to watering-places, and other places of ſummer retirement, their due character and juſt praiſe, you ſhall ſee them flouriſh much more than is poſſible by the caſual expence of fooliſh luxury.

For the intereſts of the place from which I write, therefore, ſir, but much more for the benefit of thoſe who are infected with the unhappy diſeaſe in queſtion; I ſhould wiſh that phyſiologiſts and medical philoſophers would enter deeply into the ſtudy of the *Hydro-mania*. Is it not a particular ſpecies of the *Hydro-phobia*, to which it bears ſo ſtrong an analogy? And pray, might not ſome of the remedies which ſucceed in other caſes of *mania* be applied for its cure?

I requeſt you will recommend theſe things to public notice in your uſeful publication, which will oblige yours,

W. C.

THE BRITISH MUSE.

STANZAS,

By the late Sir GREY COOPER.

PART THE FIRST.

The ſubject of the firſt part of the following ſtanzas is taken from an unfiniſhed Latin poem, De Principiis Cogitandi.—The fragments of this ſublime and elegant compoſition are preſerved in The Memoirs of the Life and Writings of Mr. Gray.

——— PROPTER AMOREM
QUOD TE IMITARI AVEO.———

SAGE Locke! thy ſpirit I invoke,
Deep ſearcher of the human mind;
The laſt beſt oracle that ſpoke
Reaſon and truth to all mankind.

Teach me to underſtand the laws
Which form, and keep in juſt controul,
(Directed by the Great Firſt Cauſe)
The Body's union with the Soul.

Thro' Nature's complicated frame,
Tell, how the thrilling nerves convey
Perception's animating flame,
To light the tenement of clay:

How the five Miniſters of ſenſe,
With power diſtinct and ſeparate train,
Approach the Mind's high reſidence,
Within the forteſs of the brain:

How when the leaſt alarm they feel,
Quick notice paſſes to the throne,
How to the Judgment they appeal,
Each by an influence of his own:

The Touch all-tremblingly awake
Pervades and agitates the whole;
The Ear ſends eloquence to ſhake,
And harmony to ſooth the ſoul.

Viſion, great commanding power,
Beauty preſents, and grace diſplays;
Smell incenſe draws from every flower;
Taſte its delicious homage pays.

As from far diſtant mountains' ſides
Rivers deſcend, and thro' the plain
Winding their way, with different tides
All ruſh into the mighty main;

The once obſequious, courtly Seine,
Mournful and ſullen paſſes by
The walls, where wildeſt factions reign,
And hold their power by anarchy:

The Viſtula indignant runs,
Her foaming cataracts, as they fall,
Deplore the fate of Poland's ſons,
And loud on Heaven for juſtice call:

From regions near the riſing day,
Ganges, *no longer Indian*, rolls;
Proud of Cornwallis, and the ſway
Of Britiſh laws, of Britiſh ſouls:

Thames, riſing from the pureſt ſpring,
To rule the commerce of the ſea,
Views, as he flows, a Patriot King,
A happy Realm, a People free.

The Sovereign, who the trident bears,
Receives the tribute all with gracious mien;
Each tribute takes, each murmur hears,
Reclin'd in majeſty ſerene:

So the ideas, from their ſource,
By different ways and channels, find
The deſtin'd object of their courſe,
The great Senſorium of the Mind.

PART THE SECOND.

ONCE more, great Prieſt of Truth divine!
I come with reverential awe
To view, unfolded at thy ſhrine,
The myſteries of Nature's law:

The Mind's receſſes to explore,
The ſecrets of the heart to ſcan,
And, led by metaphyſic lore,
Survey the inward ſtate of Man:

To learn how, when the body ſleeps,
And motionleſs each fibre ſeems;
Fancy within her revels keeps,
And the dark chamber paints with dreams:

When Judgment nods upon his throne,
And Conſcience even retires to reſt;
When every ſenſe has loſt its tone,
And all diſcerning powers ſuppreſt;

Save that by fits, the watchful Nerves
Start at the viſions as they paſs,
And Memory ſome faint forms preſerves,
Group'd in diſorder on her glaſs.

Thus, when from heaven the ſun declines,
And twilight lingeringly expires,
The glow-worm in the valley ſhines,
And ſhows its ineffectual fires.

Cloſe in her priſon-houſe immur'd,
Does then the Soul in ſleep repoſe;
And, her ethereal light obſcur'd,
The *energy of thinking loſe?*

Yet pauſe—and, checking her career,
Let Science ſtop, where *Reaſon* ends,
To all beyond that nice barrier,
The higher power of *Faith* extends.

Enough to know, that thro' this life,
The Spirit, doom'd her load to bear,
Muſt, after all their mutual ſtrife,
The fate of her aſſociate ſhare.

If with fair Temperance ſhe dwell,
Where Virtue purifies the blood,
Where no bold paſſions dare rebel,
Nor guilt invade the calm abode;

Then the bright eſſence of the Mind,
Thro' every limb divinely wrought,
And all the outward form refin'd,
The *body ſeems inſpir'd with thought:*

But, to the groſs material frame
Shou'd Vice her influence impart;
Shou'd ſenſual luſts extinguiſh ſhame,
And habit blunt the conſcious heart;

Th' immortal part infected grows,
The Soul *imbodies and imbrutes,*
Till the degrading Being loſe
All her celeſtial attributes.

Yet when life's hard probation's o'er,
And nature has her trial ſtood;
When minds and bodies change no more,
The pure in heart ſhall ſee their God.

And yon proud impious band, combin'd
From Heaven the thunderbolt to wreſt,
May, when their crimes are finiſh'd, find
That *death is not eternal reſt* *.

ODE ON TIME.

By Miſs SEWARD.

O'ER him, by health and fortune crown'd,
Time ſteals with ſtep ſo fleet,
Scarce are his faint impreſſions found
On the gay forehead's open round,
Or ſhining orb of ſight.

Smooth as the young Camilla, borne
With printleſs ſtep and fleet
O'er plenteous fields of ripen'd corn,
Whoſe bending ſtalks the gales of morn
Bow on the paſſing feet.

But o'er the dim Form, preſs'd by woes,
He treads with heavy pace,
Sweeps his broad ſcythe, and as he goes
Down falls the ſummer pride, and ſhows
Worn Nature's furrow'd face.

SONG of the FAIRIES to the SEA-NYMPHS.

[By the Same.]

HASTEN from your coral caves
Every Nymph, that ſportive laves
In the green ſea's oozy wells,
And gilds the fins, and ſpots the ſhells!
Haſten, and our meaſure join,
Ere the gaudy morning-ſhine!

Riſing from the foamy wave,
Inſtantly your aid we crave.
Come, and trip, like our gay band,
Traceleſs on the amber ſand.
Haſte, or we muſt hence away,
Yet an hour, and all is day!

At your bidding, from our feet
Shall the ocean monſters fleet;
Sea-nettle and ſting fiſh glide
Back, upon the refluent tide.
Haſte, the dawn has ſtreak'd the cloud,
Hark the village cock has crow'd!

See, the clouds of night retire,
Heſper gleams with languid fire;
Quickly then our revel join,
The bluſh of morn is on the brine.
Loiterers! we muſt hence away,
Yonder breaks the orb of day!

TO HOPE.

AH, woe is me! from day to day
I drag a life of pain and ſorrow:
Yet ſtill, ſweet Hope, I hear thee ſay
'Be calm, thine ills will end to-morrow.'

The morrow comes, but brings to me
No charm diſeaſe or grief relieving!
And am I ever doomed to ſee,
Sweet Hope, thy promiſes deceiving!

Yet, falſe and cruel as thou art,
Thy dear deluſions will I cheriſh:
I cannot, dare not with thee part,
Since *I*, alas! with *thee* muſt periſh.

VERSES ON FOUR YOUNG LADIES, PLANTING A TREE TO FRIENDSHIP.

SWEET plant, may wind and waters tend,
And long each guardian power defend,
To bloſſom many a rolling year,
Thy ſacred head to Friendſhip dear.

No favoured oak that meets the ſkies,
Although his thouſand branches riſe
To darken foreſts with their frown,
A prouder birth than thine has known.

Four ſiſter Loves, with mingling grace,
While Friendſhip ruled each angel face,
Combined their hands thy ſtem to rear,
And dewed thy cradle with a tear.

O by the bloom—the bloom of youth,
A pledge of childhood, faith and truth,
Of joys, with youth that haſte away,
To ages, dark, unborn, diſplay:

Arrayed in glorious evergreen,
Tell the far-diſtant, loveleſs ſcene,
That ſwims on nature's cloſing eye,
The plant of Friendſhip ſhall not die.

Though hearts that love may ceaſe to glow,
And every voice be hush'd and low,
And every cheek be cold and pale
That warmed to hear thy tender tale;

* The Jacobins propoſed a decree, that *death is only eternal ſleep.*

Yet ſtill, methinks, thy boughs ſhall ſhare,
Of faithful breaſts the ſecret prayer;
The woodman's heart thy trunk revere,
If e'er his boſom friend was dear.

Of friendleſs chance the wanderer wide,
Shall lean to thine his houſeleſs ſide,
When dark December tears the grove,
And dream of endleſs peace above.

The youthful ſun ſhall partial ſeem
To hail thee with his morning beam;
And laſt thy bluſhing top diſplay,
The ſweetneſs of his parting ray.

In roſy May the woodland throng
Shall ſoothe thee with their vernal ſong:
While raptures thrill each little wing,
That fans the paradiſe of ſpring.

The ſtar of eve ſhall bounteous ſhed
Her tears of love to bathe thy head,
Though early nurſed with holier dew,
Than Evening's altar ever knew.

EPILOGUE

TO THE VOICE OF NATURE.

Written by Mr. COLMAN.

Spoken by Mr. C. KEMBLE.

TO ſtrike the mind, the Scenic Muſe eſſays,
And levels her attacks a thouſand ways.—
Suſpenſe, ſurpriſe, ſad dirges, thrilling airs,
Diction that glitters, pageantry that glares;
Theſe are the Muſe's feather'd ſhafts ſhe flings,
To tickle judgment, with the arrow's wings;
But, when *The Voice of Nature* prompts her art,
She points the barb, and penetrates the heart.
Thoſe truths, from heav'nly Nature, Shakſpeare knew;
She ſpoke, he echo'd; ſhe deſign'd, he drew!
Born in *her* ſchool, bright Genius from the bow'rs
Of Fancy, wreath'd his cradle round with flow'rs:
Now, Nature's pupil, fled by Nature's doom,
Leaves Taſte to ſcatter laurel on his tomb.
Since, then, our Drama's ſun can cheer us, yet,
With beams of glory, from his golden ſet,
May not a lowly Bard, ſtill, catch a ray,
To light his feeble ſteps thro' Nature's way?
May not a lowly Bard adopt a Tale,
With Truth and Feeling fraught, tho' Genius fail,
And make *The Voice of Nature* ſtill prevail?
Where, where is Nature with more force expreſt,
Than in the fond babe-plunder'd Mother's breaſt?
Where is a breaſt more dead to Nature prov'd,
Than his, who ſees that Mother's pangs, unmov'd?
That cauſe aſſails the human heart by ſtorm,
Which pleads the ties of all in human form:
The grief-wrung Female, for her Infant wild,
Harrows each Parent, and effects each Child;
Beneath your roofs her pictur'd anguiſh glides,
And brings the int'reſt to your own fire ſides.
Britons!—to whom (though adamant in arms)
Domeſtic duties yield peculiar charms;—
Who, were thoſe duties with leſs ardour known,
Might learn a ſweet example from the Throne,—
Give your applauſe, to night!—at leaſt, be mild!
A Play, remember, is a Poet's child.

THE HOUR OF LOVE.

WHEN the fair one, and the dear one,
Her lover by her ſide,
Strays or ſits, as fancy flits,
Where yellow ſtreamlets glide,
Gleams illuming, flowers perfuming,
Where'er her footſteps rove,
Time beguiling with her ſmiling—
O that's the hour of love.

Should the fair one, and the dear one,
The ſigh of pity lend,
For human woe, that preſſes low,
A ſtranger or a friend!
Tears deſcending, ſweetly blending
As down her cheek they rove,
Beauty's charms in Pity's arms,—
O that's the hour of love!

When the fair one, and the dear one,
Appears in morning dreams,
In flowing veſt, by fancy dreſt—
And all the angel beams—
The heavenly mien, and look ſerene,
Confeſs her from above;
While riſing ſighs, and dewy eyes,
Say, that's the hour of love!

HAYMARKET THEATRE.

ON Saturday, July 31, a drama, in three acts, was produced at this theatre, for the first time, intitled THE VOICE OF NATURE.

DRAMATIS PERSONÆ.

Alphonso, king of Sicily, Mr. Barrymore; Rinaldo, his brother, Mr. C. Kemble; Garib, minister of Alphonso, Mr. Waddy; Child, Master Byrne; Riccardo, head gardner to the king, Mr. R. Palmer —Clarinda, bride to Alphonso, Miss Norton; Alzira, widow of Berroldo, Mrs. St Ledger; Lilla, a young villager, Mrs. Gibbs; Benditta, her nurse and friend, Mrs. Davenport; Isabel, governess of the child, Mrs. Emery.

The story of the play is taken from the memorable judgment of Solomon, as recorded in scripture.

The scene of this piece lies in Sicily. Lilla, the heroine, though in a state of dependance on Benditta, her nurse and friend, is the daughter of a Sicilian nobleman, who died in her infancy, and whose property fell into other hands. Benditta, a poor cottager, takes the child under her protection, and Lilla becomes a very beautiful and amiable girl. Rinaldo, brother of the king of Sicily, without revealing his rank to Lilla, excites her affection by his personal qualities, and, in a fatal moment, seduces her from virtue. He leaves her, and in due time, a boy is the issue of their loves. When the child was a year or two old, it was taken away, during the night, while Lilla and Benditta were asleep, and a shrivelled, dead one, was put in its place. The mother is, of course, wretched, and can hear no tidings of her offspring. Soon after the opening of the piece, Lilla has an opportunity of seeing the son of Alzira, the widow of a nobleman of high rank in Sicily. [Alzira's son appears to be about the same age as her own.] Her nurse and others remark a striking likeness between her and the son of Alzira. It appears that Alzira's child had been at the point of death, and that in the space of one night, a surgeon had, by a sort of miracle, restored it from a hopeless state of infirmity to the bloom of health. It appears also, that much of Alzira's property depends on her having a living son, and that the surgeon, a few days after restoring the child, died suddenly. The story rouses the suspicion of Lilla, which other events contribute to confirm, and she is at length convinced that Alzira's reputed child is her own. Rinaldo arrives in Sicily at this critical moment, for the purpose of being married to Alzira. He meets Lilla, and his heart is torn by a sense of the injury she has suffered, as well as by a revival of all his affection for her. He soon hears of Lilla's claim to the child, and of Alzira's known indifference to her supposed offspring. Rinaldo of course feels the interest of a father in ascertaining whether the child be really Lilla's offspring. The affair at length is submitted to the king. Alzira and Lilla are ordered into his presence, and he hears the allegations of the one and the defence of the other. Rendered doubtful by the conflicting evidence, he earnestly adjures the pretended mother to spare his feelings, and guide his mind to a just decision. Lilla declares that the marks on the child, and the multiplicity of corresponding circumstances so fully convince her the child is her own, that is impossible for her to resign it. Alzira avows that she had rather the child should die than consent to part with it. The king then orders the child to be seized, and an officer attends apparently for the purpose of killing it on the spot. Lilla is torn with maternal anguish, and Alzira manifests a savage triumph. At the moment when the executioner rears his sword, in order to give the fatal stroke, Lilla falls to the ground in an agony of despair, and imploring that the child may be preserved, agrees to resign it. The different conduct of the two women of course satisfies the monarch who is the real mother. He banishes Alzira, allots the child to Lilla, and having been informed of the whole of her story, determines to reward her sufferings and her affection by giving her hand to Rinaldo.

The author, Mr. Boaden, has confined himself solely to one subject, and has rendered it not altogether uninteresting. He has adhered so closely to the historical fact which constitutes the foundation of the piece, that it may be truly described as a dramatic representation of the judgment of Solomon.

The whole weight of the piece was sustained by Mrs. Gibbs in the part of Lilla, and admirably well she acquitted herself. When Rinaldo asks her what proof she has of the child being her's, she exclaims, 'Tis here,' pointing to her heart, 'the angel is my own!'—'Dare you,' he says,

maintain your claim before the king?' She replies, 'Yes! before my God!'—These paſſages were given with uncommon energy and feeling, and produced an irreſiſtible effect upon the ſympathy of the audience.

The ſcenery was various, pictureſque, and beautiful. There was no prologue.

A new Ballet was brought forward on Saturday, Auguſt 14, at this theatre, under the title of FAIRIES' REVELS; OR, LOVE IN THE HIGHLANDS.

DRAMATIS PERSONÆ.

MORTALS.

Donal, Maſter Menage; Highland Boy, Maſter Byrne; Old Man, (Father to the three girls) Maſter Cranfield; Father Auſtin, Maſter Tokely; Malcolm, Maſter Geroux.—Jane, Miſs Geroux; Peggy, Miſs C. Geroux; Iſabel, Miſs Cranfield.

FAIRIES.

The Queen, Miſs Tyrer; Film, Miſs Howells; Apparition, Miſs S. Norton.

Witches, Goblins, Elves, &c.

The FABLE.

An open country.—Enter Donald deploring the loſs of Iſabel, who (having left her father's houſe) comes upon him unobſerved. He propoſes to her to fly with him from her father's power, which ſhe refuſes, playfully keeping him at a diſtance. At length he catches her in his arms, and her father, who has purſued her, detects them—takes his daughter forcibly away, leaving Donald in the utmoſt deſpair. He is met by Film, diſguiſed as a witch. The Old Man conveys Iſabel home, and calling the ſiſters Jane and Peggy, (who welcome him, tells them of Iſabel's conduct. They affect to be ſhocked. The Old Man takes Iſabel into the houſe, Jane and Peggy being left in the garden, a ſignal is heard; Malcolm appears on the top of the wall, and Peggy is ſent to watch the Old Man—Malcolm comes over the wall, and he and Jane dance a *paſs deux*.

Peggy returns, and informs them of the father's approach. The Old Man enters, liſtening, and enquires who has been in the garden; they proteſt their ignorance of any intruder; he appears ſatisfied, but moving, ſtumbles over Malcolm's bonnet. The Old Man ſhows it to them, and they are confuſed. [Here another ſignal is heard from the wall]. The Old Man prevents his daughters from moving, and repeats it. Donald comes over, and they are all detected. The Old Man aſks the lovers what they can do to deſerve their miſtreſſes—Malcolm dances; the Old Man ſeems pleaſed, and enquires of Donald if he can rival that. He, with modeſty, confeſſes his inability. Iſabel propoſes to dance for him, which is accepted. She dances a *pas ſeul*, 'The Blue Bells of Scotland, with variations.'

The Old Man then aſks Donald, as he cannot dance, what he *can* do to win his daughter. Donald replies, that he underſtands the ſword, and will try a few paſſes with Malcolm, which is accepted.—Donald recollects the Fairy Ring, and, fearing he may loſe it in the encounter, places it on the finger of a ſtatue which is in the garden. They fight, and Donald diſarms Malcolm. The Old Man is delighted—conſents to their union; and they all go in except Donald, who, recollecting the ring, attempts to regain it, and is ſtruck with horror at the myſterious manner in which he is repelled.

Donald enters, muſing upon the circumſtances of the ring; Iſabel comes to upbraid him for his abſence; he explains to her the cauſe of it, which ſhe holds lightly, and endeavours to ridicule his fears. He rouſes his fortitude, and ſeems to ſhake off his terror, when the myſterious appearance preſents itſelf to him, pointing to the ring. Donald is almoſt petrified with horror; Iſabel tenderly demands the cauſe of it; he points to the viſion, which being inviſible to her, ſhe proteſts it is fancy. The figure moves forward, and Donald's terrors increaſe. The viſion ſings

Huſband, huſband, I've the ring,
Thou gav'ſt to-day to me;
And thou'r't to me for ever wed,
As I am wed to thee.
[Here the figure diſappears.

Iſabel, who is not ſuppoſed to have heard it, is ſhocked at Donald's apparent terror; imagines his brain is affected, approaches him; he ſinks into her arms; ſhe is endeavouring to convey him off; they are ſtopped by the hermit Auſtin, who ſpeaks as follows:

Donald, attend! repair at dead of night
To the four croſs-roads; and with keeneſt ſight,
Obſerve a train of demons glide along,
With one of mien terrific in the throng;
Give her this ſcroll, perforce 'twill work your good;
I' th' late eclipſe I wrote it with my blood.

Donald having obtained the taliſman to break the charm, affectionately embraces

Iſabel, and goes in queſt of the fairies. He enters the Goblin's cell, diſplays the tablet; the charm is broken; the ſcene flies in pieces, and diſcovers a magnificent Fairy Palace, with Iſabel and her family, and the ballet concludes with dances by the various characters.

This piece is well calculated to pleaſe the eye and the ear, and is altogether as beautiful and as intereſting a thing of the kind, as has ever been preſented. The hint was avowedly taken from a poem, called 'The Ring,' in the works of the late Mr. Little.

The ſcenery is admirably painted, and affords a very gratifying ſpectacle. The Fairy Palace, by moonlight, is very picturesque. The concluding ſcene of The Fairy Palace is very ſplendid and beautiful. Upon the whole, the piece itſelf is very well adapted to the prevailing rage for ſhow and brilliancy of effect.

The juvenile performers in this ballet acquitted themſelves in ſuch a manner as fully to deſerve the applauſe they received. Maſter Menage, maſter Geroux, and his ſiſters, diſplayed great merit, which may be ſaid of maſter Cranfield, but the beſt performer of the whole was miſs Cranfield, who is a moſt excellent dancer. She was particularly diſtinguiſhed by the plaudits of the audience, and ſhe fully deſerved all ſhe received.

Dr. Arnold has fully maintained his credit by the muſic. The overture is as charming, ſpirited, and characteriſtic compoſition. The reſt of his muſic is good, and the whole was much admired.

Miſs Tyrer ſung charmingly in a very pretty duet, which was encored

The new entertainment was received by a crowded audience with great applauſe, and was announced for repetition with unanimous conſent.

The following is a ſpecimen of the Poetry.

DUET—QUEEN and FILM.

WHEN Time, who ſteals our cares away,
Shall ſteal our pleaſures too,
The memory of the paſt will ſtay
And half our joys renew.

Then talk no more of future gloom,
Our joys ſhall always laſt!—
For hope ſhall brighten days to come,
And memory gild the paſt.

CHORUS of SPIRITS and FAIRIES.

IN the Weſt old Phœbus ſinks,
All the night with Neptune drinks—
Staggering then he lifts his head
In the Eaſt a bloated red.
Qualmiſh, crop-ſick—He, all day,
Pale and burning, makes his way
To the Night's capacious bowl,
Again to cool his thirſty ſoul,
Till with tipſy draughts he has drown'd
The world of cares which he goes round.

FRANCE.

Paris, Aug. 4.

THE audience of the corps diplomatique yeſterday was interrupted by the introduction of the conſervative ſenate.

Citizen Barthelemy, the preſident, ſpoke as follows:

Citizen Firſt Conſul,

The French, grateful for the immenſe ſervices you have rendered to them, wiſh that the firſt magiſtracy of the ſtate ſhould be irrevocably placed in your hands. In thus conferring it upon you for life, they only expreſs the opinion of the ſenate, as ſtated in its Senatus Conſultum of the 8th of May. The nation, by this ſolemn act of gratitude, confides to you the taſk of conſolidating our inſtitutions.

A new career commences for the firſt conſul—after prodigies of valour and military talents, he has terminated the war, and obtained every where the moſt honourable conditions of peace. The French people under his auſpices have aſſumed the attitude and character of true greatneſs. He is the pacificator of nations, and the reſtorer of France. His name alone is a tower of ſtrength.

Already an adminiſtration of leſs than three years has almoſt made us forget that epoch of anarchy and calamities which ſeemed to have dried up the ſources of public proſperity.

But evils yet remain to be healed, and inquietudes to be diſſipated. The French people, after having aſtoniſhed the world by warlike exploits, expect of you, citizen firſt conſul, all the benefits of that peace which you have procured for them.

If ſeeds of diſcord ſtill exiſt, the proclamation of the perpetual conſulate of Bonaparte will diſſipate them. Every one will now rally around him. His powerful genius will ſupport and preſerve all. He exiſts only for the proſperity and the happineſs of the French people. His conſtant efforts will be directed to increaſe the national glory and national greatneſs. What nation, in fact, better deſerves hap-

pineſs, and of what people more enlightened, or more ſenſible, can deſire the eſteem and attachment?

The conſervative ſenate will aſſociate itſelf with all the generous maxims of government. It will ſecond, by all the means in its power, every amelioration which ſhall have for its end the prevention of the return of thoſe evils by which we have been ſo long afflicted, and the extenſion and conſolidation of thoſe benefits which you have conferred upon us. It is its duty alſo to contribute to the accompliſhment of the wiſhes of the people, which have been manifeſted in a manner ſo honourable to their zeal and their diſcernment.

The ſenatus conſultum which the ſenate in a body now preſent to you, citizen firſt conſul, contains the expreſſion of its own gratitude. The organ of the ſovereign will, it was of opinion, could not better fulfil the intentions of the French people, than by calling in the aid of the arts to perpetuate the remembrance of this memorable event.

After this addreſs, citizen Barthelemy, the preſident, read the act, of which the following is the tenor:

SENATUS CONSULTUM.

Extract from the Regiſters of the Conſervative Senate of the 2d of Aug. 1802.

The conſervative ſenate, conſiſting of the number of members preſcribed by the 90th Article of the conſtitution;

Deliberating upon the meſſage of the conſuls of the republic, of the 29th ult.

After having heard the report of the ſpecial committee, charged with the verification of the regiſters of the votes given by the French people;

Seeing the *proces verbal* prepared by the ſpecial committee, and which ſtates, that 3,577,259 citizens have given their ſuffrages, and that 3,568,885 citizens have voted, that Napoleone Bonaparte ſhould be appointed conſul for life;

Conſidering that the ſenate, eſtabliſhed by the conſtitution as the organ of the people, in every thing in which the ſocial compact is intereſted, ought to manifeſt in a ſplendid manner the national gratitude toward the conquering and pacificating hero, and to proclaim ſolemnly that it is the will of the French people to give to the government every neceſſary ſtability and independence, in order to enſure the proſperity and glory of the republic, decrees as follows:

Art. 1. The French people do appoint, and the ſenate do proclaim, Napoleone Bonaparte firſt conſul for life.

2. A ſtatue of peace, holding in one hand the laurel of victory, and in the other the decree of the ſenate, ſhall atteſt to poſterity the gratitude of the nation.

3. The ſenate ſhall convey to the firſt conſul the expreſſion of the confidence, the love, and the admiration of the French people.

(Signed) BARTHELEMY, Preſident.
VAUBOIS and FARGUES, ſecretaries.
By the conſervative ſenate, the ſecretary general,
(Signed) CAUCHY.

The firſt conſul replied as follows:

Senators,

The life of a citizen belongs to his country. The people of France wiſh that the whole of mine ſhould be conſecrated to their ſervice, and I obey. In giving me this new, this permanent pledge of their confidence, they have impoſed upon me the duty of maintaining the ſyſtem of the laws and inſtitutions of the republic.—By my efforts, by your co operation, citizen ſenators, and that of the conſtituted authorities, and by the confidence and will of this immenſe people, the liberty, equality, and proſperity of the people of France will be ſecured from all the accidents which ariſe from the uncertainty of futurity. The beſt people ſhall, as they deſerve, be the moſt happy, and their happineſs ſhall contribute to that of all Europe.

Content with having been called by the order of Him from whom every thing emanates, to bring back upon the earth juſtice, order, and equality, I ſhall hear my laſt hour ſound without regret, and without any uneaſineſs about the opinion of future generations.

Senators, receive my thanks for this ſolemn proceeding. The deſire of the ſenate has expreſſed the wiſh of the people of France, and is thereby more ſtrongly connected with whatever remains to be done for the happineſs of the people of France. It is very gratifying to me, to be aſſured of this by the ſpeech of ſo diſtinguiſhed a preſident.

The members of the ſenate then retired.

Auguſt 7.

BONAPARTE, firſt conſul, in the name of the French people, proclaims as a law of the republic the Senatus Conſulſultum, of which the following is the tenor: —

SENATUS CONSULTUM FOR ORGANIZING THE CONSTITUTION.

Extract from the Regiſters of the Conſervative Senate of the 4th of Aug. 1802.

The conſervative ſenate, conſiſting of the number of members preſcribed by the 90th article of the conſtitution,

Having ſeen the meſſage of the conſuls of the republic dated this day, announcing the ſending of three orators of government, charged to preſent to the ſenate a project of a ſenatus conſultum for organizing the conſtitution,

Having ſeen the ſame project of ſenatus conſultum, preſented to the ſenate by citizens Regnier, Portalis, and Deſſolles, councillors of ſtate appointed for that purpoſe by an arrêté of the firſt conſul of the republic, of the ſame date,

After having heard the orators of government reſpecting the motives of the ſaid project,

Deliberating on the report of its ſpecial committee appointed in the ſitting of the 30th ult. decrees as follows:

TITLE I.

Art. I. Each juriſdiction of a juſtice of the peace has a cantonal aſſembly.

2. Each communal circuit or diſtrict of ſubprefecture has an electoral college for the circuit.

3. Each department has an electoral college for the department.

TITLE II.

Of the Cantonal Aſſemblies.

4. The aſſembly of the canton is compoſed of all the citizens domiciliated in the canton, and inſcribed on the commune liſt of the circuit. From the epoch when the communal liſts ought to be renewed in the terms of the conſtitution, the aſſembly of the canton ſhall be compoſed of all the citizens domiciliated in the canton, and enjoying the rights of citizenſhip.

5. The firſt conſul nominates the preſident of the cantonal aſſembly. His functions continue for five years, and he may be re-appointed indefinitely. He is aſſiſted by four inſpectors; two of them being the oldeſt, and the other two the moſt heavily taxed of the citizens having a right to vote in the cantonal aſſembly. The preſident and four inſpectors appoint the ſecretary.

6. The aſſembly of the canton divides itſelf into ſections for performing the operations belonging to it. At the firſt convocation of each aſſembly, its organization and forms of proceeding ſhall be determined by a regulation iſſued by the government.

7. The preſident of the cantonal aſſembly appoints the preſidents of the ſections. Their functions terminate with each ſectionary aſſembly. They are each of them aſſiſted by two inſpectors, the one being the oldeſt, and the other the moſt heavily taxed of the citizens having a right to vote in the ſection.

8. The cantonal aſſembly returns two citizens, out of whom the firſt conſul chooſes the juſtice of the peace for the canton. It, in like manner, returns two citizens for each vacant place of ſuppleant for the juſtices of peace.

9. The juſtices of the peace and their ſuppleants are appointed for ten years.

10. In cities containing 5000 perſons, the cantonal aſſembly preſents two citizens for each ſeat in the municipal council. In cities where there may be ſeveral juſtices of the peace, or ſeveral cantonal aſſemblies, each aſſembly will, in like manner, preſent two citizens for each ſeat in the municipal council.

11. The members of the municipal councils are taken by each cantonal aſſembly from a liſt of a hundred of the moſt heavily taxed in the canton. This liſt ſhall be executed and printed by order of the prefect.

The municipal councils are renewed in the proportion of one half every ten years.

13. The firſt conſul chooſes the mayors and aſſiſtants in the municipal councils. They are to be five years in office, and may be re-appointed.

14. The central aſſembly nominates to the electoral college of the circuit the number of members aſſigned to it, in proportion to the number of citizens of which it is compoſed.

15. It nominates to the electoral college of the department, from a liſt hereinafter referred to, the number of members aſſigned to it.

16. The members of the electoral colleges muſt be domiciliated in the reſpective circuits and departments.

17. The government convokes the central aſſemblies, fixes the time of their ſitting, and the object of their meeting.

TITLE III.

Electoral Colleges.

18. The electoral colleges of the circuits have one member for every 500 domiciliated inhabitants of the circuit. The number of members cannot exceed 200, nor fall below 120.

19. The departmental electoral colleges have one member for every 1000 domiciliated inhabitants in the department; but, notwithstanding, these members cannot be more than 300, nor fewer than 200.

20. The members of the electoral colleges are appointed for life.

21. If a member of an electoral college is denounced to the government as having permitted any act contrary to the honour of the country, the government invites the college to manifest its opinion thereon. Three-fourths of the votes are necessary to make a denounced member lose his place in the college.

22. A member loses his seat in the electoral colleges for the same causes which would deprive him of the rights of citizenship. He also loses it, when, without any legitimate obstruction, he absents himself from three successive meetings.

23. The first consul appoints the presidents of the electoral colleges on each session. The police of the electoral college, when assembled, is exclusively under the direction of the president.

24. The electoral colleges appoint, at the commencement of each session, two inspectors and a secretary.

25. In order to the formation of the electoral colleges of department, there shall be drawn up in each department, under the orders of the minister of finance, a list of 600 citizens, who are most heavily assessed to the *contributions foncière, mobilaire et sumptuaire et au rôle des patentes.* To the amount of the contribution must be added in the departmental domicile, such sums as may be proved to be paid in other parts of the territory of France or the colonies. This list shall be printed.

26. The cantonal assembly will select from this list the members to be appointed to the electoral college of the department.

27. The first consul may add to the electoral colleges of circuit, ten members chosen from among the citizens belonging to the legion of honour, or who have performed public services. He may add to each electoral college of department twenty citizens, ten of whom to be taken from the thirty most heavily taxed in the department, and ten others either from the members of the legion of honour, or citizens who have performed public services. He is not limited to precise periods in making these nominations.

28. The electoral colleges of circuit present to the first consul two citizens domiciliated in the circuit for each vacant seat in the council of the circuit. Of these citizens, one at least must, of necessity, be chosen from among the members of the electoral college which appoints him. The councils of circuit are renewed by thirds once in five years.

29. The electoral colleges of circuit present at each meeting two citizens to form part of the list, from which are to be chosen the members of the tribunate. Of these citizens, one at least must necessarily belong to the college which presents him. Both of them may be chosen from persons not residing in the department.

30. The electoral colleges of the department present to the first consul two citizens domiciliated in each department for every place vacant in the council general of the department. One of these citizens, at least, must necessarily be taken from the electoral college which presents him. The renovation of the councils general of the department takes place by thirds every five years.

31. The electoral colleges of the departments present at each meeting two citizens to form the list from which the members of the senate are named. One of them, at least, must necessarily be taken from the college which presents him, and they both may be taken from the department. They are to have the age and the qualifications prescribed by the constitution.

32. The electoral colleges of the departments and circuits present each two citizens domiciliated in the department, in order to form a list from which the members of the deputation to the legislative body are to be named. One of these citizens is necessarily to be taken from the college which presents him. There must be three times as many different candidates on the list formed by the function of the presentations of the electoral colleges of the departments and circuits as there are vacant places.

33. The same person may be a member of a council of commerce, and of an electoral college of circuit or department. The same person cannot, however, be at

the ſame time member of the college of circuits and college of department.

34. The members of the legiſlative body cannot attend the ſittings of the electoral college to which they belong. All the other public functionaries have a right to attend and to vote.

35. No cantonal aſſembly ſhall proceed to nominate to the places that belong to it in an electoral college, until theſe places are reduced to two-thirds.

36. The electoral colleges can aſſemble only in conſequence of an act of convocation emanating from the government, and in the places aſſigned to them. They can take cognizance of the ſubjects only for which they are aſſembled, nor can they prolong their ſittings beyond the time fixed by the act of convocation. If they exceed theſe limits, the government poſſeſſes the right of diſſolving them.

37. The electoral colleges can neither directly or indirectly, nor under any pretence whatſoever, hold any intercourſe with each other.

38. The diſſolution of an electoral body neceſſarily leads to the renewal of all its members.

TITLE IV.

Of the Conſuls.

39. The conſuls are for life. They are members of the ſenate, and act as preſidents.

40. The ſecond and third conſuls are appointed by the ſenate on the preſentation of the firſt.

41. For this purpoſe, when either of the two places becomes vacant, the firſt conſul preſents to the ſenate a firſt perſon. If he is not appointed he preſents a ſecond, and if the ſecond is not accepted, he preſents a third, who is of neceſſity appointed.

42. When the firſt conſul thinks proper, he appoints a citizen to ſucceed him after his death, according to the forms preſcribed in the preceding article.

43. The citizens appointed to ſucceed the firſt conſul takes an oath to the republic, to be adminiſtered by the firſt conſul, aſſiſted by the ſecond and third conſuls, in the preſence of the ſenate, the miniſters, the council of ſtate, the legiſlative body, the tribunate, the tribunal of caſſation, the archbiſhops, biſhops, preſidents of the tribunals of appeal, the preſidents of the electoral colleges, the preſidents of the cantonal aſſemblies, the grand officers of the legion of honour, and the mayors of the twenty-four principal cities of the republic. The ſecretary of ſtate draws up the *proces verbal* of the adminiſtration of the oath.

44. The oath is in theſe terms: 'I ſwear to maintain the conſtitution, to reſpect the liberty of conſcience, to oppoſe the return of feudal inſtitutions; never to make war but for the defence and glory of the republic; and not to employ the power wherewith I ſhall be inveſted, but for the happineſs of the people, from whom and for whom I ſhall have received it.'

45. Having taken this oath, he takes his ſeat in the ſenate immediately after the third conſul.

46. The firſt conſul may depoſit, among the archives of government, his wiſh as to the nomination of a ſucceſſor, to be preſented to the ſenate after his death.

47. In this caſe, he ſummons the attendance of the ſecond and third conſuls, the miniſters and preſidents of the ſections of the council of ſtate. In their preſence he delivers to the ſecretary of ſtate the paper ſealed with his ſeal, and in which his wiſh is recorded. This paper is ſubſcribed by all thoſe who are preſent at the tranſaction. The ſecretary of ſtate depoſits it among the archives of government in the preſence of the miniſters and preſidents of the ſections of the council of ſtate.

48. The firſt conſul may withdraw this depoſit, obſerving the formalities preſcribed in the preceding article.

49. After the death of the firſt conſul, if his choice has remained in depoſit, the paper contained in it is withdrawn from the archives of government by the ſecretary of ſtate, in the preſence of the miniſters and preſidents of the ſections of the council of ſtate; their identity and entire ſtate being aſcertained in the preſence of the ſecond and third conſuls. It is addreſſed to the ſenate by a meſſage from the government, with a copy of the *proces verbeaux*, certifying the depoſit, the identity, and entire ſtate.

50. If the perſon, preſented by the firſt conſul, is not appointed, the ſecond and the third conſuls preſent one each; in caſe of neither of theſe being nominated, they each make another preſentation, and one of the two muſt of neceſſity be appointed.

51. If the firſt conſul leaves no preſentation the ſecond and third conſuls make their preſentations ſeparate; if neither obtains the nomination, they make a third, from which the ſenate muſt of neceſſity nominate.

52. In every caſe, the preſentations and nomination muſt be completed within 24 hours after the death of the firſt conſul.

53. The law determines for the life of each firſt conſul the ſtate of the expenditure of government.

TITLE V.

Of the Senate.

54. The ſenate regulates, by an organic ſenatus conſultum—

1ſt. The conſtitution of the colonies.

2d. Every thing not provided for by the conſtitution, and which may yet be neceſſary to its operation.

3d. It explains thoſe articles of the conſtitution which admit of different interpretations.

55. The ſenate, by act, entitled ſenatus conſulta—

1ſt. Suſpends for five years the functions of juries in the departments where that meaſure may be neceſſary.

2d. Proclaims, where circumſtances require it, certain departments out of the protection of the conſtitution.

3d. Determines the time when the individuals arreſted in virtue of the 46th article of the conſtitution, are to be brought before the tribunals, in ſuch caſes where they are not brought to trial in ten days from the period of their arreſt.

4th. Annuls the judgment of the civil and criminal tribunals when dangerous to the ſafety of the ſtate.

5th. Diſſolves the legiſlative body and tribunate.

6th. Appoints the conſuls.

56. The organic ſenatus conſulta and ordinary ſenatus conſulta are deliberated upon by the ſenate, on the initiative of the government. A ſimple majority ſuffices for a ſenatus conſulta. Two thirds of the votes of the members preſent are neceſſary for an organic ſenatus conſultum.

57. The projects of the ſenatus conſultum, adopted in conſequence of articles 54 and 55, are diſcuſſed in a privy council, compoſed of the conſuls, two miniſters, two ſenators, two counſellors of ſtate, and two grand officers of the legion of honour. At each meeting the firſt conſul appoints the members who are to compoſe the privy council.

58. The firſt conſul ratifies the treaties of peace and alliance, after taking the advice of the privy council. Before he promulgates them, he communicates them to the ſenate.

59. The act of the nomination of a member of the legiſlative body, of the tribunate and of the tribunal of caſſation, is entitled arreté.

60. The acts of the ſenate relative to its police and internal adminiſtration, are entitled deliberations.

61. In the courſe of the year 11, he will proceed to the nomination of fourteen citizens, to complete the number of eighty ſenators, fixed by the 15th article of the conſtitution. This nomination ſhall be made by the ſenate, on the preſentation of the firſt conſul, who ſhall for that purpoſe ſelect three perſons from the liſt of citizens choſen by the electorate colleges.

62. The members of the grand council of the legion of honour are members of the ſenate, whatever may be their age.

63. The firſt conſul may beſides nominate to the ſenate, without the previous preſentation of the electoral colleges of the departments, citizens diſtinguiſhed for their ſervices and their talents, on theſe conditions, however, that they ſhall be of age required by the conſtitution, and that the number of ſenators ſhall not exceed 120.

64. The ſenators may be conſuls, miniſters, members of the legion of honour, inſpectors of public inſtruction, or employed on extraordinary and temporary miſſions.

65. The ſenate appoints each year two of its members to perform the duty of ſecretaries.

66. The miniſters have ſeats in the ſenate, but no deliberative voice, unleſs they are ſenators.

TITLE VI.

Of the Counſellors of State.

67. The counſellors of ſtate ſhall never exceed the number of fifty.

68. The council of ſtate is divided into ſections.

69. The miniſters have rank, ſeats, and votes in the council of ſtate.

TITLE VII.

Of the Legiſlative Body.

70. Each department ſhall have a number of members proportioned to the extent of its population, conformable to the annexed table.

71. All the members of the legiſlative body, belonging to the ſame deputation, are to be nominated at once.

72. The departments of the republic are divided into five ſeries, conformable to the annexed table.

73. The preſent deputies are claſſed according to theſe five ſeries.

74. They ſhall be renewed in the year to which the ſeries, including the department to which they are attached, ſhall be referred.

75. The deputies denominated in the year 10 ſhall, however, complete their five years.

76. The government convokes, adjourns, and prorogues the legiſlative body.

TITLE VIII.

Of the Tribunate.

77. From and after the year 13, the tribunate ſhall be reduced to fifty members. One half of the fifty ſhall go out every three years. Until this reduction be completed, the members who go out ſhall not be replaced. The tribunate is divided into ſections.

78. The legiſlative body and the tribunate are to be wholly renewed, immediately on their diſſolution by the ſenate.

TITLE IX.

Of Juſtice and the Tribunals.

79. There ſhall be a grand judge, miniſter of juſtice.

80. He has a diſtinguiſhed place in the ſenate and council of ſtate.

81. He preſides in the tribunal of caſſation and the tribunals of appeal, when the government judges it proper.

82. He has the right of vigilance and ſuperintendance over the tribunals and juſtices of peace.

83. The tribunal of caſſation, when he ſits as preſident, has the right of cenſure and diſcipline over the tribunals of appeal and the criminal tribunals. He may, on ſerious complaints, ſuſpend the judges from their functions, and ſend them before a judge, to give an account of their conduct.

84. The tribunals of appeal have the right of ſuperintendance over the civil tribunals within their juriſdiction, and the civil tribunals over the juſtices of peace of their diſtrict.

85. The commiſſioners of government to the tribunal of caſſation, ſuperintends the commiſſioners to the tribunals of appeal and the criminal tribunals. The commiſſioners to the tribunals of appeal ſuperintend the commiſſioners to the inferior tribunals.

86. The members of the tribunal of legation are appointed by the ſenate on the preſentation of the firſt conſul. The firſt conſul preſents three candidates for each vacant place.

TITLE X.

Right of Pardoning.

87. The firſt conſul has the right of pardoning. He exerciſes it after the deliberation of a privy council, compoſed of the grand judge, two miniſters, two counſellors, and two members of the tribunal of caſſation. The council of ſtate having, on the reference of the conſuls, diſcuſſed the above project, approve of it, and decree that it ſhall be preſented to the conſuls in due form.

(A true Copy.)

J. G. LOCRE, ſecretary general of the council of ſtate.

Approved, BONAPARTE, firſt conſul.

By order of the firſt conſul,

H. B. MARET, ſecretary of ſtate.

The preſent ſenatus conſulte ſhall be tranſmitted by a meſſage to the conſuls of the republic.

(Signed) BARTHELEMY, preſident.
VAUBOIS, and FARGUES, Secretaries.

By the conſervative ſenate,
The ſecretary general CAUCHY.

[Then follows a table of the number of deputies to be choſen by each department to the legiſlative body, amounting in the whole to 300. Alſo a table of the departments of the republic divided into five ſeries.]

Let the preſent ſenatus conſulte, ſealed with the ſeal of ſtate, be inſerted in the bulletin of laws, and inſcribed in the regiſters of the judiciary and adminiſtrative authorities, and the miniſter of juſtice is charged with the ſuperintendance of its publication.

Paris, Auguſt 5, 1802.

(Signed) BONAPARTE.
(Signed) H. B. MARET.

Paris, Auguſt 17.

Conformably to the ordonnance of the counſellor of ſtate prefect of police, of the 12th inſt. the two ſenatus conſulte of the 2nd and 4th of Auguſt were on Sunday (Auguſt 15) proclaimed at ſeven o'clock in the morning, in the city of Paris, and throughout the department of the Seine, as well as in the communes of Sevres, Meudon and St. Cloud.

At eleven in the morning, the adminiſtrative authorities of the department and the city, aſſembled at the prefecture, and proceeded to the palace of government. At four they aſſiſted at the Te Deum in Notre Dame, in common with the tribunals. In the evening, the tower of Notre Dame was brilliantly illuminated, as were the principal public edifices.

HISTORICAL CHRONICLE.

AUGUST 2.

HADFIELD, the maniac, who attempted his majeſty's life in Drury-lane theatre, and on Wedneſday made his eſcape from Bedlam, was ſecured on Friday morning by an officer from Bow ſtreet, at a public houſe in Deal, and immediately brought back to town. Another maniac eſcaped at the ſame time.—It is the practice in Bethlem to ſecure all the cells every night; but this not being properly attended to on the evening of Hadfield's eſcape, the two lunatics deſcended from their apartments to the gallery, and from thence to the green, where the convaleſcents are permitted to walk; ſcaling the wall into Moorfields they got clear off. On diſcovery of their flight, the keepers were diſpatched in all directions, but without effect. Hadfield, and his companion, had proceeded as far as Deal, from whence the former wrote to his wife, directing her to diſpoſe of what furniture, &c. ſhe might have, and come to him, that they might go to France together; on receipt of the letter, the wife went immediately to Bethlem, and informed the keepers, who, accompanied by her and ſome police officers, ſet off for Deal, where they immediately ſecured him. His companion found means to conceal himſelf for ſeveral hours, till diſcovered by the ſervants of the inn among ſome hay. When taken, Hadfield ſeemed much affected, cried bitterly, and upbraided his wife with having betrayed him.

AUGUST 5.

Bath, Aug. 2.—The great number of outrages committed ſhow the diſtracted ſtate of the clothing diſtricts in this neighbourhood. The diſcontents firſt manifeſted themſelves about the beginning of April laſt, by cutting off the young trees of ſeveral manufacturers of Bradford, Weſtbury, and Warminſter; and by a variety of anonymous letters, conceived in terms the moſt horrible, threatening fire and deſtruction to the clothiers. Theſe alarming riots and lawleſs acts have not yet entirely ſubſided, notwithſtanding every precaution is taken to put an end to ſuch outrages. Detachments of troops have gone from all the neighbouring towns, and every manufactory is ſtrictly guarded, yet the enthuſiaſm of thoſe miſguided people is carried to ſuch an exceſs, that on Wedneſday night an armed body of them attacked the factory at Staverton, belonging to meſſrs. Jones, Hart, and Jones, and fired from three different parts, at the centinels on duty, who returned the fire, but hearing the horſe patrole coming up, the depredators retreated. And on Thurſday night a dwelling houſe ſituate at Bearfield near Bradford, the property of John Jones, eſq. one of the partners in the above firm, was deſtroyed by fire, and there is every reaſon to ſuppoſe that it was wilfully done. The premiſes were unoccupied.

AUGUST 7.

A letter has been received from Madras, by the earl Howe, containing the following account of the inſtallation of the nabob Azum ul Dowlah on the muſnud of the Carnatic. His highneſs entered the Durbar between the right hon. the governor, lord Clive, and his excellency the vice-admiral, preceded by Joſiah Webb, eſq. the chief ſecretary to government, and followed by his excellency lieutenant-general Stuart, and the other members of council. He was then inveſted with the inſignia of his elevated ſtation by the right hon. the governor, aſſiſted by the admiral and the general. The ſword was the laſt article of ſtate with which his highneſs was decorated, on the pommel of which he reſted his hand in a moſt graceful attitude, while he addreſſed a ſhort ſpeech to his lordſhip in Perſian. He then preſented one hand to his lordſhip, and the other to his excellency the admiral, and aſcended the muſnud. When his excellency was ſeated, the right hon. the governor occupied a chair placed below, and on the left of the muſnud; on his lordſhip's left ſat the admiral, then the general, Mr. Fallowfield, the generals of the ſtaff, &c. correſponding to this order; and on the right of the Nabob ſat ſir Thomas Strange; then Mr. Petrie, Mr. juſtice Gwillim, Mr. juſtice Sullivan, the adjutant and quarter-maſter general: the ſecretary ſtood behind, and officiated between the right hon. the governor and his highneſs. After ſome mutual compliments, the new treaty with his highneſs, which had been previouſly ſigned, was exchanged in form. Lord Clive preſented it to his highneſs, who placed it by him on the muſnud: the counterpart was then put into the Nabob's hands, who preſented it to lord Clive, by whom it was received in a ſtanding poſture, and placed in Mr. Webb's hands. The ceremony concluded with ſprinkling

roſe water, preſenting beetle-nut, &c. and a general diſcharge of artillery.

AUGUST 9.

MUTINY of the CONVICTS at Woolwich.—The convicts belonging to the Preſton hulk, to the number of about one hundred and fifty, have been employed on ſhore in wheeling barrows of earth, bricks, &c. On Thurſday morning, about half paſt eight o'clock, when the convicts returned from the hulk, after breakfaſt, a number of them, evidently in a previouſly concerted manner, ruſhed up to one of their keepers, who kept a gate leading into the dock yard, armed with large claſp knives. They demanded the gate to be opened; when he replied, he had not got the key. He had no ſooner given the anſwer than he was knocked down. The key was taken out of his pocket, and the gate opened, They then ruſhed out of the gate, to the number of about fourteen, which led them into the dock-yard. The alarm was inſtantly given, and they were purſued by ſeveral keepers, armed with loaded muſkets. One of the keepers levelled his muſket at one who was armed with a knife, when he was about thirty feet from him; the bullet entered the left ſide of his head, which drove part of his ſkull and brains into his hat: he inſtantly fell lifeleſs to the ground. Another was ſhot in his left ſide, but he was not yet dead; four of them contrived to ſcale the wall of the yard, which would have led them into an open field, but ſeveral of the keepers anticipated their deſign, and ran to the field. When the convicts had got on the top of the wall, the keepers told them if they did not inſtantly return, they would blow their brains out, which induced them to return. An expreſs having been ſent off to Woolwich barracks, to general Lloyd, informing him of the mutiny, he ordered the drum to beat to arms, and fortunately the men were all out exerciſing, and ready to march. In about twenty minutes the dock yard was ſurrounded by ſeveral horſemen, and they were followed by ſeveral hundred foot of the royal artillery. Several of the convicts being miſſing, a number of the horſemen were diſpatched to beat about the neighbouring woods and hedges, but in vain; they could not be found. However, all thoſe that were miſſing were at length diſcovered concealed in various parts of the yard, but the laſt was not found till between three and four o'clock in the afternoon, when one of the ſoldiers perceived him lying under ſome old timber. He refuſed for a conſiderable time to come out, till the ſoldier threatened to run him through; and the ſoldier actually entered his ſhoulder ſeveral inches with his bayonet before he would come out.

On Saturday, the 7th inſtant, the coroner's inqueſt ſat on the body of John Reeves, the unfortunate convict, who happened to be ſhot by the keeper. In the courſe of the examination, it appeared, that to the number of 230 convicts came aſhore to the dock-yard, under the care of Mr. Bookleſs, chief mate of the Prudentia. Francis Cobb was the man who came up to the door, and took the keeper by the throat, till the key was taken from him. The jury brought in their verdict—*Juſtifiable Homicide*. Captain Read, of the Prudentia, ſays, that he entertained ſome ideas that the mutiny had been long preconcerted, becauſe the day before they were heard to ſay on board, 'To morrow we ſhall be at Bromley fair, in Kent,' which was the fair day. Upon one of the convicts who was going to be flogged, it was diſcovered, that there was a ball lodged in his ſhoulder. Dr. Gardner ſays, that the other man who happened to receive a ſlug through the body cannot poſſibly recover, as it is lodged in his lungs; he may, however, linger ſome time.

AUGUST 10.

On Saturday evening, American papers to the 26th of June were received in town, and they confirm the intelligence of an extenſive conſpiracy of the blacks in the Southern provinces of America, for the murder of their maſters, and the overthrowing of the exiſting government of the country.

Several expreſſes had arrived at New-York, from Norfolk, and other places, giving an account of the riſing of the negroes. In Hartford county a large body had appeared in arms. Bertie county, and the town of Windſor, were in a much worſe ſtate. The negroes in great numbers had marched from the different places to the Chawan river, where they are embodied and armed, at the ferry, about ſeven miles up the river.

The ſlaves of North Carolina were moſt forward in the lately diſcovered plot, and their riſing was to have been the general ſignal for revolt throughout the neighbouring ſtates. The 10th of June was the day appointed for the negroes in the diſtricts of Murfruſborough, Bertie, Winton, Windſor, &c. to aſſemble, and commence a general maſſacre of the whites.—

The plot was diſcovered by a letter found in the poſſeſſion of a negro woman, directing certain negroes, therein named, to be ready with their arms at the time appointed. Ten of thoſe people were tried at Winton, on the 14th of June. By the evidence, it appeared that they were to aſſemble at Cockran's ferry, on the 10th, and to ſeize the arms, &c. depoſited at Mr. Fitt's: after murdering all there, they were to proceed to Freeman Chapple, in Bertie, where an aſſociation meeting of the Baptiſts was expected to draw together a large collection of people; all the white males and old females were to be murdered; as alſo any blacks who would not join them: the young white females were to be reſerved for wives, and the young female ſlaves were to be retained as domeſtics for them. This part of the army was to be commanded by a mulatto named Frank, who was executed at Winton, on the 12th of June. A fellow named King Brown was the leader of another diviſion, and has been executed, with eight others, at Windſor. Upward of one hundred ſlaves are in cuſtody in Bertie county, and great numbers in Martin, &c. The militia have been called out, and every white in the country has been under arms during many nights.

At Halifax, the inhabitants patrole the ſtreets nightly. By the evidence of a black, named Tony, that place was to have been ſet on fire on the night of the 14th of June, and all the white inhabitants maſſacred during the conflagration. The arreſt of this fellow, and ſome others, has been the means of averting the calamity.

MUTINY on BOARD the HERCULES TRANSPORT.—The Hercules and Atlas tranſports in November laſt ſailed from Cork, with convicts for New South Wales, having among the number ſeveral perſons concerned in the late rebellion. On their paſſage out, the priſoners on board the Hercules formed the project of ſeizing the ſhip, and of carrying her to the neareſt French ſettlement.—They formed their plan with great ſecrecy and ſyſtem, and won over to their purpoſe five of the ſailors of the ſhip. On the 20th of December, off the iſland of St. Antonio, the priſoners roſe upon the crew, and gained poſſeſſion of the quarter-deck: the officers, and ſuch of their people as remained attached to them, made a gallant reſiſtance; and after a deſperate conflict, in which twelve of the mutineers were killed and ten wounded (of whom two died ſoon after) the officers regained the ſhip.—Of the five ſailors, one was dangerouſly wounded. On the other ſide, none were ſeriouſly hurt. The Hercules and Atlas arrived at the Cape of Good Hope on the 12th of April.

AUGUST 11.

On Monday, a meeting of the Weſt India Dock company was held at the London tavern. Mr. alderman Hibbert, who was in the chair, ſtated the object of the meeting to be to appoint, by ballot, five directors to ſucceed thoſe going out of office that day; and alſo to take into conſideration the proceedings of the laſt ſpecial general meeting, when it had been propoſed to raiſe the ſum of 210,000l toward completing the docks, and that the preſent proprietors, who might wiſh to ſubſcribe, ſhould pay 140l per cent. for the new ſhares to be thus created. It having been, however, decided, that they ſhould pay only 100l per cent. the court of directors had agreed to the ſame; and propoſed for the adoption of the general meeting, that this ſum ſhould be paid by inſtalments of 20 per cent. The firſt inſtalment to be paid on the 31ſt of this month, and the laſt in April next. That on the 1ſt of February, an intereſt of five per cent. ſhould be paid on the money ſubſcribed, and that from the 5th of Auguſt next, theſe new ſhares ſhould be conſidered as ſtock, and the holders receive from that time all the benefit of dividends. But no proprietor, whoſe ſhares did not amount to 250l could claim any ſhare ariſing out of the intended ſubſcription, or could ſubſcribe on the conditions propoſed. On the motion of Mr. Raud, the ſum for new ſhares was fixed at 200,000l, inſtead of 210,000l. The chairman informed the meeting, that the ſum of 275l had been given by the company, through the directors, to the widows of thoſe men who unfortunately loſt their lives in the Coffer Dam, on the 22d of July.

AUGUST 14.

SURRY ASSIZES.

Guildford, Auguſt 11.

The following *qui tam* action was brought at the inſtance of the coal-meters againſt Mr. Newell, a coal dealer, to recover the penalty for a fraudulent delivery of a quantity of coals by pool meaſure.

Mr. Garrow ſtated, that the jury were called upon to execute a taſk of the utmoſt importance; it was by their verdict, if poſſible, to introduce a little common honeſty in the coal trade, than which there was none where the public was ſo completely pillaged. The action ſought to re-

cover that which was the penalty inflicted by act of parliament, for the non-performance of the contract, which was the foundation of the preſent action. There were two ways by which coals were ſold by the monopolizers of that article; the one was by wharf meaſure, which was the meaſure to the conſumers; the other by pool-meaſure, by which the public was told that they got the ingrain; that was half a chaldron in ten chaldrons. He then ſtated that there was no more fruitful ſource of fraud, than this pretence of ſelling by pool-meaſure. The defendant, Mr. Newell, had ſold coals to a Mr. Phillips, a druggiſt; he bought a former parcel, which had proved ſcandalouſly deficient in meaſure, and of courſe he complained of this, and he received a letter from Newcaſtle, ſtating that the defendant was ſorry for what had happened, but that it took place ſometimes without their being able to prevent it, at the ſame time adding, that they were about to ſend ten chaldron in a ſhip, as ballaſt, which they would let Mr. Phillips have, and that the meaſure ſhould amply compenſate his former deficiency. Mr. Phillips took the cargo, and by the pool-meaſure he ought to have had 378 buſhels, but upon re-meaſurement, he had only 300, a difference of 78 buſhels. This was the common practice of many in the trade; but he truſted that when a jury caught them, they would ſcourge them well; and intimate to the coal-merchant, that he muſt deal a little more honeſtly. The buyer had complained to the defendant, who, when he found he was detected, ſaid, 'Oh dear! you was only to have eight chaldrons and a half out of that ſhip, but another of our veſſels will ſoon arrive, when you ſhall have the reſt.' Mr. Garrow then reaſoned upon the probability of his defence, and inſiſted that it was but an after-thought meant to cover their former fraud. He inſiſted that ſuch practices being ſo noxious to the public, any man had a right to puniſh thoſe who lived upon the 'heart's blood' of the public, and to put his hand into their pockets in the manner the law directed. The operation might have the effect of inoculating them with a little honeſty, and to prevent too frequent a recurrence of ſimilar conduct.

Evidence was then called to ſubſtantiate the caſe.

The letter alluded to by Mr. Garrow was produced and read, by which it appeared that the defendant had promiſed to ſend the buyer ten chaldron of coals, pool-meaſure, and which was to compenſate for his former deficient meaſure. It was alſo proved that the coals were ſent in by four waggons, and that the total amount on the tickets was 126 ſacks. Mr. Phillips, the buyer ſaid he was diſſatisfied, and was induced to have the coals re-meaſured—He did ſo—they were re-meaſured by the Surry coal-meter, and found deficient as above ſtated. On croſs examination, he ſaid, the defendant was agent to the Edinburgh Glaſs company, and that the coals he received came in ballaſt.—He had been charged but with eight and a half chaldron in his account.

W. Biggs, deputy-meter, re-meaſured the coals; the deficiency, according to pool-meaſure, was twenty-ſix ſacks ſhort, or ſeventy-eight buſhels.

Mr. ſerjeant Sheppard, for the defendant, made a very able defence, and inſiſted that no fraud was intended on the part of his client. The coals were ſent merely as ballaſt, and therefore whether there were eight or ten chaldron, could not be expreſsly aſcertained; but as ſoon as his client knew that they were ſhort of ten chaldron, he immediately wrote to Mr. Phillips, ſaying that the deficiency ſhould be made up. He alſo contended that it was a mere miſtake as to the quantity, for it could never be ſuppoſed, as his client had ſaid in his own letter, that he intended to cheat the buyer of two chaldron and a half in his purchaſe of ten. No man in his ſenſes would have attempted a fraud of this ſort, eſpecially after a former letter of complaint. He truſted that the jury would not think there were ſufficient grounds to convict his client in a penalty of 100l.

Several witneſſes were called to prove that the variation of pool-meaſure was ſuch, that the room of coals might be contained in 126 ſacks. One of theſe, a Thomas Henton, ſaid, that in a trade ſo *diverſe* as the coal-trade, and ſo *precarious*, in the uſual *routine*, the quantities might be different; but on croſs-examination by Mr. Garrow, he was obliged to confeſs, that in the uſual *routine*, he ſhould expect more than 126 in ten chaldron, pool-meaſure.

Mr. Garrow, in reply, made many ſevere animadverſions on the conduct of perſons then conducting the coal-trade, by which the public were moſt enormouſly pillaged.

The lord chief baron ſaid, it had been truly obſerved that this was a queſtion of public importance, becauſe it was of great

importance the public ſhould be protected from frauds of this nature. His lordſhip then minutely detailed the evidence, and having gone through it, left it to the jury to ſay whether the coals were ſold as ten chaldron pool-meaſure, and whether the defendant meant to warrant they were of that quantity.

The jury heſitated but a ſhort time, and returned a verdict for the plaintiff.

AUGUST 16.

On Tueſday morning, at eight o'clock, a very ſingular circumſtance occurred at Teignmouth. The ſea, at low water, inſtantaneouſly roſe and fell nearly two feet, ſeveral times in the ſpace of ten minutes; and the fiſhing-ſmacks at ſea experienced ſuch a violent commotion, that they were in danger of being loſt. The ſame phenomenon has been obſerved at Exmouth, Weymouth, and ſeveral places along the coaſt. On the ſhores of Italy ſuch phenomena are not uncommon; they are there generally regarded as the forerunners of earthquakes. A ſimilar occurrence happened at the time of the deſtruction of Liſbon.

On Friday laſt, Stephen Lee, the houſebreaking gipſey, with the two ſoldiers of the 14th light dragoons, for highway robberies, and the monſter for the rape near Walthamſtow, were executed at Chelmſford, purſuant to their ſentence: the three former died obdurately, the laſt ſhowed evident marks of contrition.

AUGUST 17.

A few days ago died at Roxley, in Hertfordſhire, Robert Thew, hiſtorical engraver to the prince of Wales. He was born in Yorkſhire, about the year 1758, and was a man of a very extraordinary mechanical genius, which had but little cultivation, as his education was almoſt entirely neglected. He was apprenticed to a cooper, and which trade he afterward for ſome time followed; he then applied himſelf to the ſtudy of optics, and made a very curious camera obſcura, on a new principle, which gained him the patronage of the marquis of Caermarthen (afterward duke of Leeds); at about the age of twenty-eight, happening to ſee an engraver at work, though he had never practiſed drawing, he got a copper-plate, and engraved an old woman's head, from a painting by Gerard Dowe, which firſt attempt was ſo very extraordinary, that he was appointed hiſtorical engraver to the prince of Wales. He has ſince engraved a great number of capital plates from the paintings of ſir Joſhua Reynolds, Shee, Weſtall, Smirke, Fuſeli, Northcote, Peters, &c.

AUGUST 18.

At the court at Weymouth, the 16th of Auguſt, 1802, preſent the king's moſt excellent majeſty in council.

His majeſty in council was this day pleaſed to order the right hon. the lord high chancellor to iſſue writs for proroguing the parliament, which was appointed to meet on Tueſday, the 31ſt day of this inſtant Auguſt, to Tueſday, the 5th day of October next; and alſo for proroguing the convocations of Canterbury and York, which were appointed to meet on Wedneſday, the 1ſt day of September next, to Wedneſday, the 6th day of October next.

Admiralty-office, Auguſt 14. This is to give notice, that information has been received at this office, that on Sunday the 8th inſtant, the brig Adventure, of London, William Codling, maſter, of the burden of ſeventy-ſeven tons, with a cargo, conſiſting of various articles of merchandiſe, laden on board at the ports of London and Yarmouth, and bound for Gibraltar and Leghorn, foundered at ſea, about ſix miles from the ſhore off Brighthelmſtone, the maſter and crew having previouſly quitted her in their boat. Information has alſo been received, that by the aſſiſtance of a ſloop and ſeveral fiſhing-boats, the ſaid veſſel was yeſterday weighed and brought on ſhore at Brighthelmſtone, where the whole of her cargo has been landed and ſecured under the king's locks; the veſſel does not appear to have ſuſtained any very material injury in her hull, except one hole in the after part of her bottom, and hopes are entertained that ſhe will be got off the next tide, and be taken into the harbour. E. NEPEAN.

Saturday morning, the 14th inſtant, between three and four o'clock, as the Royal Charlotte (Margate packet) was going down to that place, ſhe ran foul of a large collier at anchor in the middle of the river, near Graveſend, which accident had liked to have proved of a very alarming nature, there being about 140 perſons on board, moſt of whom were below at the time ſhe ſtruck; had the collier been under ſail the conſequences muſt have been fatal to moſt on board, as ſhe cut water of the collier, and took the centre or middle of the Hay's ſide; it was near five hours before they got clear, and that with the loſs of moſt of the ſhrouds, &c. which the bowſprit of the collier away. The craſh was heard by ſome watermen at Graveſend, a full mile diſtance. Much

credit is due to the captain of the collier for his ready and humane aſſiſtance at the time in getting the paſſengers on board his veſſel, which was the Providence, from South Shields.

AUGUST 19.

MONMOUTH ASSIZES.—A conſiderable degree of curioſity was awakened in the public mind, on Tueſday laſt, at the trial of Mr. William Saunders of Pontypool, being charged by the coroner's inqueſt, with the wilful murder of his ſon, John Saunders, by ſhooting at and wounding him with a gun, of which wounds he died; when, after a full and patient inveſtigation of four hours, he was found guilty of manſlaughter, and diſcharged on paying a fine of 6s 8d. The outrageous conduct of the ſon, not only in beating and horſe-whipping his aged parent, but openly threatening to murder him the firſt opportunity, urged the father to load the gun in his defence; but although the fatal charge took effect, the priſoner ſolemnly declared, he had no intention of killing the deceaſed, but only to deter him from repeating his avowed threats, which he reſolutely ſwore he would ultimately put in execution. Under theſe circumſtances, the jury returned their verdict.

AUGUST 20.

At the laſt quarter ſeſſions for the county of Middleſex, Samuel Colins, otherwiſe Virgin, and H. D. Free, were indicted, together with a man of the name of Stocker, for a conſpiracy to defraud, by artful ſtratagems and falſe pretences, John Ibbetſon and ſeveral other perſons of their monies, goods, and chattels. The proſecutor was Mr. Ibbetſon, who keeps the hotel in Vere-ſtreet, Oxford-ſtreet. He ſtated, that in September laſt, Colins came to his houſe in an elegant chariot with two ladies, whom he called his wife and his niece. He himſelf, he ſaid, was a man of large fortune, was going to ſet up a bank, and expected to be ſoon created a baronet. He pretended that he was very intimate with lord Kenyon, and that to rivet his lordſhip's affections he was going to publiſh a book againſt paper money. He left the hotel in a week or two, but continued occaſionally to frequent the houſe. Being one day dining there with a friend, who turns out to be the defendant Free, he declared himſelf to be enraptured with the wine, and expreſſed a deſire of buying twelve dozen of it. He offered in payment a bill of exchange for 65l 10s, drawn in favour of Samuel Collins, eſq. at ſix weeks after date, by William Stocker, at Cheſter, on B. D. Free, eſq. No. 9, Harley-ſtreet, by whom it was accepted, and made payable at meſſrs. Williams, Son, Drury and company, bankers. Mr. Ibbetſon agreed to let him have the wine, and the next day gave him a check for 37l 12s, the balance of the bill. However, the porter in carrying home ſome of the wine to Mortimer-ſtreet, where he lived, diſcovered that he had cheated the whole of that neighbourhood; and Ibbetſon enquiring at the banker's if the bill would be paid, was told that they knew no ſuch perſons as thoſe whoſe names were ſtated to be upon it. Colins was then apprehended upon a warrant, but bailed by Mr. John King, of Portland-place. One of the partners in the houſe of meſſrs. Williams, and Co. produced Free's caſh book, from which it appeared, that in October he had only 9s 6d in their hands, to anſwer bills he had made payable by them for 1,166l. When he firſt opened an account with them, he came to their houſe in a very elegant chariot, with ſervants in handſome liveries, and pretended he was recommended to keep caſh there by his intimate friend ſir Gregory Page Turner. It was alſo proved that Colins had put off a bill of five hundred pounds to a ſilverſmith, in Bond-ſtreet; another of 365l to a tavern keeper, in Covent-garden; another of 135l to a coachmaker, in Long-acre; another of 55l to an upholſterer, in Oxford-ſtreet; another of 35l to a hoſier, in the ſame ſtreet; and for others of 100l, 25l 10s, 150l, and 100l to other tradeſmen. For theſe, by falſe pretences, he obtained goods or money, or both. In the courſe of the trial it appeared that his real name was Virgin; that he was the ſon of a weaver at Taunton; that he went when very young to live as a footman at Bath; that he was afterward a clerk in one of the Bath banks; that being diſcharged for improper conduct, he paſſed over to France; and that upon his return he officiated as an uſher in ſeveral academies in the neighbourhood of London. He afterward became maſter of a large ſchool at Hammerſmith, the good will of which he ſold for a large ſum of money. He next opened a day ſchool in Portland ſtreet, under the name of the Rev. Samuel Virgin, a clergyman of the church of England. This likewiſe flouriſhing, he ſold it. He then went and officiated as a curate at Huntingfordbury, Herts, were he once more eſtabliſhed a ſchool. He ſoon got a number of young gentlemen at ſixty guineas a year each,

but he was obliged to leave the place on account of his debts. He next appeared by the evidence, a clerk in the Cromie bank. When it failed he was employed by meſſrs. King and Co. to go to Cheſter and Liverpool to try to eſtabliſh a firm in each of theſe two towns to correſpond with the Portland-place bank. Even here he betrayed his truſt. Previous to his going to Cheſter, he procured the king's licence to change his name from Virgin to Colins, under the pretence of having had a large fortune left him by a diſtant relation of that name. He got the neceſſary documents enrolled at the Herald's-office, and juggled his creditors into a belief of his good fortune. Free was proved to have been educated at Oxford, and before he was decoyed into this ſcheme, to have been an aſſiſtant in ſome of the firſt claſſical ſchools in England. Stocker, the third man in fabricating the bills, was for ſome time a meſſenger at Mr. Wright's lock-up-houſe. The jury found Colins and Free, both guilty; whereupon the court immediately ſentenced Colins to be impriſoned two years in Newgate, and Free one year in New Priſon, Clerkenwell.

AUGUST 27.

The following article is extracted from the Liſbon Gazette of the 14th of Auguſt.

Liſbon, Auguſt 14. General Laſnes, envoy extraordinary and miniſter plenipotentiary of the French republic, left this court in the morning of the 10th inſt. a meaſure which he took from his own proper will, and which is the more unexpected, as the civilities and attentions paid to him by this court, in demonſtration of the conſtant friendſhip, perfect harmony, and good underſtanding ſubſiſting between this monarchy and the French republic have been conſtant and repeated, and as there does not exiſt any actual object of diſcuſſion between the two governments which can alter, in the ſlighteſt degree, the happy relations of this country with France, relations which this court deſires efficaciouſly to promote, and even to render more intimate.

AUGUST 28.

OPENING of the WEST INDIA DOCKS.

Yeſterday the magnificent docks at Blackwall, which in ſize and accommodation to ſhipping exceed every thing that now exiſts, were opened for the reception of ſhipping in the Weſt India trade.

A little after twelve o'clock, ropes were thrown to the people on ſhore, in order to tow the Henry Addington, a Weſt Indiaman lately launched, into the dock. The people laid hold of the cords, but the veſſel being large and heavy, it was ſometime before ſhe could be moved, notwithſtanding the Echo, a veſſel from the Weſt Indies deeply laden, had entered the great baſin ſoon after eleven o'clock. By the ſtrenuous exertions of the people on ſhore, aided by a windlaſs on each ſide of the great floodgate, the veſſel was at laſt brought near the entrance of the dock. She was greeted by the populace on each ſide with loud and reiterated huzzas, and by the band of muſic belonging to the firſt regiment of guards, who played, 'See the conquering hero comes!'

The veſſel being by this time very near the floodgate, a conſiderable delay took place before ſhe was introduced to the dock. This, however, having been overcome, the people once more '*gave way*,' and the ſhip came in amid the ſhouts of the ſpectators. The band playing 'God ſave the King,' 'Rule Britannia,' &c. &c. She was decorated in the moſt ſplendid manner by the flags of all nations diſplayin various parts of her rigging:—at the main top-gallant maſt-head was perceived the Royal Standard; at the fore top-gallant maſt the Admiralty Flag; and at the mizen top-gallant the Union Jack.

The veſſel having come to her moorings at the firſt ring-bolt-buoy, fired a royal ſalute, which was anſwered by the ſhouts and huzzas of the ſpectators.

The Echo, a veſſel, as mentioned above, deeply laden from the Weſt Indies, was next towed in. She is a very handſome ſhip, and was received with the loudeſt expreſſions of joy. Upon this veſſel reaching her ſtation another ſalute was fired from the Henry Addington, which concluded the buſineſs of the docks.

The water in the dock extends in ſurface 822,400 ſquare feet, and in cubic feet, (the depth being 25 feet) contains 20,560,000.

A magnificent entrance or gateway to the quays, is intended, with allegorical devices, and there will be a high wall round the whole, beſide a ſloping ditch. The number of houſes for the reſidence of clerks and workmen will convert the marſh, in time, into a town; ſo that London will really extend from Paddington turnpike to Blackwall, without any interruption whatever.

The directors of this great undertaking gave a grand dinner yeſterday, at the London tavern, to celebrate the opening of the

docks; the dinner was attended by ſeveral of the nobility, and by a conſiderable number of merchants.

Thurſday the final examination took place before the lord mayor, of William Codling, captain, and William M'Farlane, one of the owners of the brig Adventure, charged with conſpiring to defraud the underwriters of the ſaid ſhip, by felonioufly ſinking her on Sunday, the 8th inſtant, off Brighton. The priſoners declined to make any defence; but, by their counſel, requeſted to be admitted to bail. His lordſhip informed them their requeſt could not be complied with, and they were accordingly committed to Newgate, in order to be tried at the next admiralty ſeſſions. And on Friday, John Eaſterby, one of the owners of the Adventure, was examined at the Marine Police-office, being charged as a party concerned in the conſpiracy to defraud the underwriters. The magiſtrates ordered him to ſtand committed to Newgate, to take his trial at the next admiralty ſeſſions.

BIRTH.

LADY of colonel Onſlow, twins.

Lady of ſir John Davie, bart. a daughter.

Lady Eliſabeth Halliday, a daughter.

Lady of John Prettejohn, jun. eſq. a daughter.

MARRIAGES.

CAPTAIN Foley, to lady Mary Fitzgerald, daughter of the duke of Leinſter.

Colonel Twiſden, to miſs Dyke, daughter of ſir John Dyke, bart. of Lullingſtone Caſtle, Kent.

John Scott, eſq. to miſs Monro, only daughter of the late Dr. Donald Monro, of Argyle-ſtreet.

Iſaac Minet, eſq. to miſs Pole, daughter of ſir Charles Pole, bart.

Henry Care, eſq. of Norley Bank, Cheſter, to miſs Juliana Corbett, daughter of Thomas Corbett, eſq. of Darahall, in the ſame county.

Thomas Green, eſq. of Turrell's hall, Eſſex, to miſs Brumhead, of Uffington, Lincolnſhire.

Hon. and Rev. Thomas de Grey, ſecond ſon of lord Walſingham, to miſs Eliſabeth North, fourth daughter of the biſhop of Wincheſter.

Duke of St. Alban's, to miſs Manners, daughter of lady Louiſa Manners.

Lord viſcount Kirkwall, to the hon. miſs Anna Maria Blacquiere, eldeſt daughter of lord de Blacquiere.

Captain Tedley, of the cold-ſtream guards, to miſs Warren, only daughter of rear-admiral ſir John Borlaſe Warren, bart. K. B.

DEATHS.

LUCY dowager Cliſden, aged 71.

Samuel Yates, eſq. of Highgate.

Dame Frances Lever, relict of the late ſir Aſhton Lever, knt.

The widow of John Story, eſq. of Low Layton, aged 82.

Thomas Ellis, eſq. of Palatine houſe, Stoke Newington.

Mrs. Smith, of Colebroke-row, Iſlington, aged 75.

Rev. Richard Clarke, rector of Hartley, Kent, aged 83.

Earl of Groſvenor.

Mr. Daniel Richards.

Mary Anne ducheſs dowager of Somerſet.

Rev. Richard d'Aubeny, rector of Ibberton, Dorſet, aged 83.

Miſs Louiſa Hudſon, youngeſt daughter of ſir Charles Grave Hudſon, bart.

Rev. Dr. Lewes, brother to ſir Watkin Lewes.

General ſir Robert Sloper, of Weſt Green, Hants.

John Sloane, of Kincardine, aged 96.

Jeffery Jackſon, eſq. of Woodford, aged 73.

Chriſtopher Milbourn, eſq. aged 86.

Mrs. Mary Savage, of Caſtle Thorpe, Bucks, aged 102.

Mrs. Reynolds, at Hampton-in Arden, Warwickſhire, aged 104.

Mrs. Murphy, of St. John's Hill, Shrewſbury, aged 89.

Prince Henry of Pruſſia, brother to Frederick III, and uncle to the preſent king of Pruſſia, aged 76.

Jones Morgan, of Dinas-mowddy, in Merionethſhire, aged 106.

George Griffin Stoneſtreet, eſq. of Clapham.

Rev. William Arnold, D. D. canon of Windſor.

Thomas Bigſby, M. D. of Ipſwich, aged 90.

Edward Hippeſley, eſq. of Iſleworth, aged 86.

Mr. Marmaduke Bell, at the Curragh, Kildare, aged 108.

Hon. Henry Greville, third ſon of the earl of Warwick.

PREFERMENTS.

REV. Thomas Dampier, D. D.—biſhop of Rocheſter.

Rev. William Vincent, D. D.—dean of St. Peter, Weſtminſter.

PROMOTIONS.

ROBERT Liſton, eſq.—envoy extraordinary and miniſter plenipotentiary to the Batavian republic.

John Hunter, eſq.—conſul-general at Madrid.

Admiral ſir John Borlaſe Warren, bart. and K. B.—ambaſſador extraordinary and plenipotentiary at the court of St. Peterſburgh.

BANKRUPTS. From the GAZETTE.

JULY 27.

W. BETTGER, Vauxhall, taylor.

T. Scott, Coleman-ſtreet, dealer.

J. Marſhall, Workington, Cumberland, linen-draper.

H. Hill Harvey, of Tokenhouſe-yard, broker.

JULY 31.

H. D. Neſbitt, L. S. Neſbitt, and F. Neſbitt, Piccadilly, milliners.

J. Froome, Bermondſey-ſtreet, Southwark, currier.

T. Maltby, and G. Maltby, Size-lane, merchants.

J. Grant, Lawrence Pountney-lane, merchant.

G. Hancock, Exeter, leather breeches-maker.

E. Lonſdale, York, linen-draper.

E. Compton, Cholderton Lains, Southampton, corn-dealer.

B. Kegeler, Newport, in Salop, linen-draper.

S. Jackſon, Liverpool, cheeſemonger.

F. Colombine, D. Colombine, D. Colombine the younger, and P. Colombine the younger, Norwich, merchants.

J. Cartwright, Newton, York, dealer.

AUGUST 3.

R. Hodges, Shrewſbury, druggiſt.

R. Barker, Wellingborough, common-carrier.

T. Brooks, Gainſborough, Lincolnſhire, grocer.

W. Sunderland, Wakefield, Yorkſhire, grocer.

J. B. Dennis, St. Andrew's-hill, Doctor's-commons, wine-merchant.

AUGUST 7.

W. F. Beaumont, Mitre-court, Cheapſide, wine-merchant.

I. Davis, and M. Solomon, Union-court, Broad-ſtreet, merchants.

M. Camon, Plymouth, grocer.

W. Smallwood, Greenfield-ſtreet, in Whitechapel, upholder.

J. Hardy, Leadenhall-ſtreet, ſilverſmith.

R. Eaſto, Weybread, Suffolk, butcher.

A. Geddes, Mark-lane, merchant.

AUGUST 10.

R. Weſton, Shepton Mallet, Somerſetſhire, liquor-merchant.

J. Kendrick the elder, Birmingham, bellows-maker.

J. Heale, Beckington, in Somerſetſhire, baker.

H. Croſner, Bridge, Kent, linen-weaver.

A. De Mendes, Moorfields, merchant.

W. Sealy the younger, Rettendon, in Eſſex, farmer.

W. C. Holder, Roſs, in Herefordſhire, money-ſcrivener.

AUGUST 14.

A. Warner, Marlborough, in Wilts, ſtocking-manufacturer.

S. Self, Haleſworth, in Suffolk, corn-merchant.

W. Pontney, Sledmere, in Yorkſhire, corn-factor.

T. Appleton, Wigan, Lancaſhire, dyer.

W. Hazelhurſt, Back-hill, Hatton-garden, engraver.

AUGUST 17.

T. Thomas, Streatham-ſtreet, Bloomſbury, jeweller.

J. Lloyd, Woolwich, victualler.

J. Brown, Goldſmith-ſtreet, warehouſeman.

T. Rogerſon, Oxford-ſtreet, linen-draper.

G. Elliott, and G. Pickard, Wood-ſtreet, Cheapſide, riband-manufacturers.

E. Crean, Margaret-ſtreet, Cavendiſh-ſquare, carpenter.

T. Horton, Lawrence Pountney-hill, dry-ſalter.

T. Wrightſon, Doncaſter, mercer.

AUGUST 21.

J. Jackman, Exeter, linen-draper.

R. Behenna, Penryn, Cornwall, maltſter.

W. Heald, T. Heald, and R. H. Heald, Wakefield, J. Heald, King-ſtreet, and R. Fotter, Wakefield, merchants.

J. Laſt, All Saints, in Suffolk, ſhopkeeper.

D. Simpſon, Broad-ſtreet-buildings, warehouſeman.

J. Boulton, St. Martin's-lane, upholder.

C. Clark, Buckingham-ſtreet, Strand, victualler.

J. Calderwood, Clarence-place, Pentonville, wine-merchant.

W. Naylor, Liverpool, timber-merchant.

AUGUST 24.

S. Phelps, Groſvenor-place, merchant.

J. Stott, Macclesfield, Cheſter, innkeeper.

J. Dance, Oxford-ſtreet, orange-merchant.

T. Garforth, Bramhope, in Yorkſhire, corn-merchant.

J. H. Emmott, J. Browne, and F. Browne, Old Jewry, wine-merchants.

NEW PUBLICATIONS.

PLUMPTRE's Chriſtian Guide, 8vo, 7s.

King's New Syſtem of Arithmetic, &c. 2s 6d.

Peart's Information on the Scarlet Fever, 2s 6d.

Collin's Account of the Colony in New South Wales, vol. 2, 1l 5s.

Elmore's Britiſh Mariner's Guide to India and China, 4to, 2l 2s, half-bound.

Aſiatic Annual Regiſter, 1801, 8vo, 10s 6d.

Skillern's New Syſtem of Engliſh Grammar, 12mo, 3s 6d, bound.

Gentz's State of Europe before and after the French Revolution, 8vo, 8s.

Sixty-third Letter, a Farce, 1s. 6d.

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Peart on Inflammation of the Bowels, 1s 6d.

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Village Romance, 2 vol. 12mo, 8s.

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AVERAGE PRICES of CORN,

Auguſt 14, 1802.

By the Wincheſter Quarter of 8 Buſhels,

Inland Counties.

	Wheat.		Rye.		Barley.		Oats.	
	s.	d.	s.	d.	s.	d.	s.	d.
Middleſex	71	6	36	6	35	7	25	4
Surry	69	4	36	0	34	4	24	2
Hertford	60	6	38	6	31	3	21	10
Bedford	64	1	32	8	34	0	21	0
Huntingdon	67	1	——		28	9	17	8
Northampton	66	10	46	0	30	0	19	6
Rutland	73	0	——		35	6	17	0
Leiceſter	68	11	——		33	2	17	10
Nottingham	79	6	46	0	41	0	20	10
Derby	78	6	——		——		22	6
Stafford	74	7	——		35	6	22	3
Salop	73	7	52	2	——		23	11
Hereford	63	8	39	2	31	5	23	3
Worceſter	70	9	39	0	34	5	27	2
Warwick	72	7	——		34	6	23	4
Wilts	65	0	——		28	0	21	10
Berks	65	11	——		29	4	23	1
Oxford	64	1	——		29	11	21	0
Bucks	67	9	——		36	6	21	3
Brecon	68	9	——		——		17	8
Montgomery	70	11	48	0	31	2	18	6
Radnor	67	4	——		32	0	20	9

Maritime Counties.

Eſſex	67	2	38	6	32	0	25	4
Kent	66	0	——		34	6	24	10
Suſſex	65	6	——		——		24	2
Suffolk	68	4	30	0	33	3	22	8
Cambridge	68	0	32	0	27	10	18	9
Norfolk	66	4	35	0	29	6	21	0
Lincoln	72	0	36	6	33	5	18	8
York	74	0	47	2	——		18	11
Durham	71	11	——		——		19	11
Northumberland	67	3	40	0	28	4	19	7
Cumberland	83	8	59	4	36	9	20	6
Weſtmorland	85	5	53	0	30	2	23	2
Lancaſter	75	9	——		——		21	5
Cheſter	68	2	——		——		21	8
Flint	60	2	——		48	10	19	8
Denbigh	81	11	——		44	1	20	10
Angleſea	None		bro't		forSale		——	
Carnarvon	71	0	48	0	32	8	18	0
Merioneth	74	8	64	0	41	4	24	0
Cardigan	58	6	——		28	0	12	0
Pembroke	59	3	——		36	10	14	0
Carmarthen	61	8	——		28	0	13	4
Glamorgan	78	11	——		37	10	19	9
Glouceſter	69	1	——		32	3	22	11
Somerſet	65	2	——		——		17	0
Monmouth	69	0	——		——		——	
Devon	65	11	——		25	6	23	6
Cornwall	65	7	——		24	6	16	4
Dorſet	72	7	——		28	8	24	9
Hants	65	8	——		28	4	23	0

Average of England and Wales.

Per Quarter	69	5	42	5	32	10	20	9

Auguſt 27—Peck Loaf, 3s 4d.

METEOROLOGICAL JOURNAL, July 1802.

D.	H.	Baro.	T. out	T. in	H.	C.	Wind.	Weather, &c.	Rain 3,04
1	7	29,70	54	57,5	54	5	SSW 3	. much gentle rain	
	2	29,50	59	60	62	5	SW 4	little wet and leſs cloudy at times: fine	
2	7	29,66	56	59	55	2	WSW 2	. cloudy and little wet: gentle rain	
	2	29,52	58,5	60,5	57	5	SSW 3	. heavy ſhower. fine eve	
3	7	29,70	53,5	58	52	3	W 2	: cloudy and little rain	
	2	29,81	59	60	49	5	SW 2	much rain but fine at times. clear night	
4	7	30,03	52	56,5	54	1	WSW 1	. cloudy at times	
	2	30,03	62	59,5	57	2	W 1	. cloudleſs eve: cloudy	
5	7	30,23	55	58	53	5	W 1	. leſs cloudy at times: little wet	
	2	30,23	61,5	61	49	5	WSW 1	. much gentle rain: more wind and chiefly	
6	7	30,11	58,5	60	60	5	SW 3	. little wet at times [fair	
	2	30,02	61	62	59	5	SW 3	. little rain. fine eve. cloudy: leſs wind	
7	7	30,08	58	60,5	57	5	WSW 1	. fine	
	2	30,17	67	63	48	3	W 1	. cloudleſs eve	
8	7	30,12	57	61	57	3	WSW 1	. cloudy. chiefly fine	
	2	30,04	67	63,5	51	4	SSW 1	. more cloudy. little wet. rainy night: fine	
9	7	29,93	57	61,5	57	2	W 1	hazy: ſhower	
	2	29,96	66,5	64	50	3	WSW 1	. cloudleſs eve: cloudy. little rain	
10	7	30,06	57,5	61	59	5	SSW 2	little rain and leſs cloudy at times: rain	
	2	29,89	60,5	64	59	5	S 3	rain. fine eve. cloudy: leſs wind and fine	
11	7	30,02	56	61	53	2	W 1		
	2	30,10	62,5	63	45	3	W 2	. cloudy night: fine	
12	7	30,10	52	57	50	2	W 1		
	2	30,14	65,5	62	44	3	N 1	. wind E at eve. hazy	
13	7	30,18	54	60,5	51	3	E 1	hazy. more cloudy at times and little wet	
	2	30,12	61	61	49	5	E 1	. heavy ſhower	
14	7	30,18	56	58,5	57	5	ENE 1	. little wet at times but leſs cloudy	
	2	30,23	64	61	47	4	NE 1	. little rain and wind N. fine night	
15	7	30,26	51,5	56,5	53	1	N 1	: wind NW and cloudy	
F	2	30,13	64,5	60	44	5	W 1	. little wet. rainy eve: leſs cloudy	
16	7	30,04	52,5	57,5	55	3	N 1		
	2	30,06	63,5	60	47	3	W 1	. cloudy and little rain: little rain	
17	7	29 87	57	59	59	5	WSW 1	. little rain and chiefly cloudy: ſhower. fine	
	2	29,80	63	62,5	56	2	W 1	. chiefly cloudy and little rain at times: fine	
18	7	29,99	55	59,5	53	1	WNW 2	. chiefly cloudy: chiefly fine	
	2	30,12	62	61,5	47	3	W 2	: cloudy. rain	
19	7	30,02	54	59	61	6	SSE 1	rain. chiefly fair	
	2	29,84	62,5	62	62	6	SSW 1	heavy ſhower. fine and wind NW. thick up-	
20	7	29,92	54	59,5	61	h	NW 1	not cloudy. fine [ward at night	
	2	29,92	64	63,5	47	3	WSW 1	. little wet. thick upward at night: much gen-	
21	7	29,73	55	59	60	h	ESE 1	rain. chiefly rain and wind S [tle rain	
	2	29,63	62	63	58	4	S 2	hazy. fine	
22	7	29,75	54	59	55	3	SW 2	. more wind and frequent ſhowers	
	2	29,78	60,5	60,5	54	5	W 3	rain at times and leſs cloudy. leſs wind SW	
23	7	29,89	55,5	59	61	3	WSW 1		
	2	30,01	64,5	61,5	58	3	W 1	. little wet	
24	7	30,23	52	57	55	1	W 1	. more cloudy	
	2	30,28	62,5	61,5	50	4	W 1	. chiefly fine	
25	7	30,23	54,5	59	55	3	WSW 2	. more cloudy	
	2	30,18	64,5	61,5	48	4	SSW 2	. little wet. thick upward at night	
26	7	29,98	60	61	61	5	SSW 1	. little rain at times	
	2	29,98	65	64	59	5	SSW 2	. little wet and leſs cloudy at times. thick	
27	7	29,95	58	62	60	h	SW 1	. little drizzly rain [upward	
	2	29,98	65	64	59	5	WSW 1	. drizzly at times	
28	7	30,02	58	62,5	59	5	WSW 1	. wind SSW and much gentle rain	
	2	29,93	62	63,5	64	5	SSW 1	gentle rain. more wind and chiefly fair. leſs	
29	7	29,93	58	62,5	60	4	WSW 1	. leſs or more cloudy at times: fine [wind	
N	2	29,93	66,5	63,5	54	3	SW 2	. ſhowers. fine eve	
30	7	29,96	56,5	61	60	3	WSW 1	: little wet	
	2	29,96	66	64,5	49	4	SW 1	ſhowers and more cloudy: fine	
31	7	29,98	55	60	58	3	WSW 1	. chiefly cloudy and little rain: fine	
	2	30,03	65,5	63,5	49	3	W 1		

PRICES of STOCKS, from JULY 29 to AUGUST 27, 1802, both inclusive.

By ANTHONY CLARKE, Stockbroker, No. 29, Princes-Street, Lothbury.

Days	Bank Stock.	3 per C. reduced.	3 per C. consols.	4 per C. Annu.	Old 5 per C. Conf.	New 5 per C. Annu.	Long Annu.	Short Annu.	India Stock.	Imperial 3 per C.	Imperial Ann.	Exch. Bills 3d per day.	Exch. Bills 3½d p. day.	Engliſh Lot. Tic.
29	185	72 ⅜	71¼a⅜	88 ⅛	100 ⅛	103 ⅜	20 ⅛	5	209	70 ⅛	12 ¼	3s dif.	6s. p r.	
30	186	72 ⅜	71⅜a½	88 ⅛	100 ⅛	103 ⅜	20 ⅛		209	70 ⅛	12 ¼	3	5	
31		72 ⅜	71⅜a½	88 ⅛	100 ⅛	103 ⅜	20 ⅛				12 ¼	3	5	
2		72 ⅜	71⅜a½	88 ⅛	100 ⅛	104 ⅛	20 ⅛	5	210 ¼	70 ⅝	12 ¼	3	4	
3	187 ¼	72 ⅜	72a71⅝	88 ⅛	101 ⅛	104 ⅛	20 ⅛		210	70 ⅝	12 ⅜	2	5	
4		72 ⅜	71⅝a⅞	88 ⅛	101 ⅛	104 ⅛	20 ⅛	5	208 ½	70 ½	12 ¼	2	4	
5	187	72	71⅛	88 ⅛	100 ⅞	104 ⅛	20 ⅛	5	208 ½		12 ¼	2	5	
6	187	71 ⅞	71⅛a70¾	88 ⅛	100 ⅞	104 ⅛	20 ⅛	5	208	69 ⅞	12 ¼	2	5	
7		71 ⅞	70¾a⅞	88 ⅛	100 ⅞	104 ⅛	20 ⅛	5				par	5	
9		70 ¼	70⅛a69¾	87 ⅞	100 ⅞	103 ⅞	20 ⅛	5		69	12 ⅜	par	5	
10	185 ½	71	70⅜a⅝	88	100 ⅞	104 ⅛	20 ⅛		208		12 ¼	par	5	
11		70 ⅛	70⅛a69¾	87 ¼	100 ¼	104	20 ⅛					2s dif.	5	
12														
13	183 ½	70	69⅜a68⅞	86 ¼	99 ⅞	103	20 ⅛	5	206	67 ½	12	3	3	
14		69 ⅞	68⅝a½	86	99	102	20 ⅛		203	67 ⅞	12 ⅛	3	3	
16	184 ¼	69 ⅛	68½a69¼	86 ¼	99 ⅛	102 ½	20 ⅛		205	68	12 ⅛	3	2	
17	185	69 ¼	68¼a½	86 ¼	99 ⅛	103	20 ⅛		207	68	12 ¼	2	1	
18	184 ¼	71	70¼a68¾	87 ¼	100 ⅛	103 ¼	20 ⅛	5	208	69	12 ¼	3	1	
19	185 ½	70 ⅛	69¼a68⅞	87 ¼	100	103 ⅜		5	207	68 ½	12 ¼	3	par	
20	185 ½	70 ¼	69¼a68⅞	87 ¼	100 ⅛	103 ¼	20 ⅛	5	207	68 ⅜		3	par	
21		69 ⅜	68¼a⅝	87 ¼	99 ⅞	102 ¼	20 ⅛		205 ½			3	3s pr.	
23	185	69 ⅜	68¼a⅝	86 ¼	100	102 ¼	20 ⅛	4 ⅞	204 ½	68		2	2	
24		69 ¼	69a68⅝	86 ¼			20 ⅛		206 ½	68 ⅛		2	2	
25	185	69 ⅜	68¼a67⅞	86 ¼	99 ⅞	102 ½	20 ⅛			67 ½	12 ¼	4	par	
26	184 ½	68 ⅞	68a66¾	86 ¼	99 ⅛	102 ¼	20 ⅛		203	67 ½	12 ⅜	4	par	
27	183 ½	68 ¼	66a67⅜	85 ¼	99 ⅛	101 ¼	20	4 ⅞			12	3	par	

☞ In the 3 per Cent. conſols. the higheſt and loweſt Price of each Day is given; in every other Article the higheſt Price only, the Long, Short, and Imperial Annuities excepted, which are given within a ſixteenth of the higheſt Price. In the different Funds that are ſhut, the Prices are given with the Dividend till the Days of Opening.